

Manufacturers Record

Exponent of America



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NOVEMBER 22, 1923

How to Enrich the South.

Pointing out that one of the great needs of Alabama, and for that matter of the whole South, is the kind of advertising which California is doing, the Anniston Star urges upon its state, and upon the South, big, broad, comprehensive publicity work. It emphasizes the superior advantages possessed by that state and by the South, and it adds:

"What Alabama needs is for the world to know what Alabama is, and what Alabama has, and this is what the whole South needs. * * *

"California cities and industries lose no opportunity to do advertising on a big scale and they spare no expense in doing it. Advertising has made the California raisin one of the 'world's best sellers.' It has lifted the California prune from obscurity to every dining table in the land. It has caused people to call for California oranges and grapefruit when they really wish the Florida kind. It has, in fact, turned the attention of millions to California, her products and her opportunities. This is what advertising also would do for Alabama and the South and nothing else will do it."

These are true words. What the South has accomplished of recent years has been largely done despite the handicap of inadequate advertising on the part of its railroads, its business institutions, its states and its cities. It could have made far greater progress if all of these interests had determinedly, persistently and broadly advertised the South.

Today one can hardly pick up a daily paper without finding a striking advertisement of California urging people to come to "the land of summer sunshine." The most appealing advertisements which have been written for many years are those which are now telling the story of California, and others which with equal effectiveness are telling of the advantages of Washington and Oregon. A man can scarcely read these advertisements, it matters not how enthusiastic he may be about his own section, without wanting to pick up and go out to the Pacific Coast and start life all over again. But California could never have achieved the wonderful results which it has wrought if this advertising had been spasmodic or if its people had become discouraged after a few years of advertising. Year after year for the last fifty years California and the railroads leading to the Pacific Coast have with tireless energy and broad, comprehensive liberality spent tens of millions of dollars in publicity work.

An equal amount of money spent on the South would we believe have produced even greater results than are seen on the Pacific Coast, for the opportunities in the South naturally are greater than those of any other part of our land. But our railroads and our people generally have never had a full realization of what adequate publicity work can do. The amount spent in advertising by some of the big railroad systems of the South is picayunish to the extreme; it is unworthy of them and of the section tributary to them. A few Southern roads are doing a fair amount of advertising, but not one-tenth of what they should do measured by the resources of the country to be developed and the enrichment which this development would bring to them and to the entire South. The same may with equal justice be said of Southern states and cities, and of many Southern concerns which would be enormously benefitted by adequate publicity, big, broad, bold, persistent publicity year in and year out.



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Bridges and Bridge Piers
Mine Shafts and Tunnels*

BUILDERS OF SUPERSTRUCTURES AS WELL AS SUBSTRUCTURES

NOVEMBER 22, 1923

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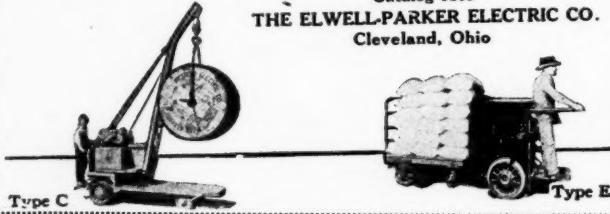
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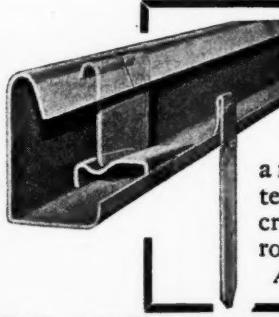
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Manufacturers Record

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of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

Vol. LXXXIV No. 21
Weekly.

BALTIMORE, NOVEMBER 22, 1923.

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Remarkable Foreign Trade Indicative of World Economic Betterment.

THE total value of our foreign trade, exports and imports, for October amounted to \$705,000,000 as compared with \$646,000,000 for October of 1922.

The exports amount in value to \$402,000,000, the largest in any month since February, 1921, being an increase of \$21,000,000 over the preceding month and \$91,000,000 above the August export figure, and \$31,000,000 greater than the exports of October, 1922.

There has been a steady gain month by month lately in our foreign trade, showing that under the Fordney-McCumber tariff, and despite the conditions existing in Europe, our exports and imports have been advancing at a rate that might almost be classed in the familiar phrase of "by leaps and bounds."

The total exports for the ten months ended October amount to \$3,342,607,699, or a gain of \$235,000,000 over the corresponding period of 1922, and a very large proportion of this gain has been made during the last few months.

Our imports during the first ten months of this year amount to \$3,207,153,528, or an increase of \$680,000,000 over the same months of last year.

Imports and exports combined show a gain of \$915,000,000 for the first ten months of this year over the figures for the similar period of last year.

The free traders in opposing the Fordney-McCumber tariff insisted that it would largely restrict our foreign trade, since other countries would not be able to buy from us, nor would they be able by reason of our protective tariff to sell to us. Both contentions have been proven wholly false. Foreign countries are buying from us in an ever increasing amount, and they are likewise selling to us on a scale which puts all figures of trade prior to the war in the shade.

For instance, our total exports for the ten months ending with October, 1913, amounted to \$2,005,283,622, or \$1,337,000,000 less than our exports for the same period of this year. The imports for the first ten months of 1913 amounted to \$1,460,334,373, or \$1,847,000,000 less than for the corresponding period of this year. Stated in another way, our imports for the first ten months of this year were more than twice as great as during the first ten months of 1913.

All the world is buying from us and selling to us far and away more than ever before in our history except during the war period, and the years immediately following, when our enormous exports of munitions of war and of foodstuffs at high prices gave us a larger export business, stated in values, than at the present time. But even this difference was very largely due to the effect of war activities and the necessity at the closing of the war of supplying some of the tremendous vacuum created by it.

Conditions in many parts of Europe are steadily improving, and every report that comes shows some economic betterment and also in world activities. During the last few weeks the demand for shipping room to Europe has been larger than for many months, and temporarily there is no sign of abatement.

Trade in other parts of the world is likewise showing a marked degree of betterment. Recent figures published in the MANUFACTURERS RECORD demonstrate the remarkable increase in our trade with South America, both imports and exports, and the growth of our business with the Orient indicates a betterment of conditions there which presages a very wonderful development in Asia in the near future.

In the full calendar year of 1913 we bought from the Far East a total of \$314,078,218, but during the first nine months of the present year our imports from the East aggregated \$835,990,611. During the full year of 1913 we exported to the Orient a total of \$194,159,465, while for the first nine months of this year we shipped to the Orient \$442,260,490. The Department of Commerce reports that "this is due to the increased purchasing power of the people of the Orient which has raised their standard of living, coupled with the industrial movements in Japan and India combining to cause this increased consumption of our manufactured products and machinery."

Every country in the Orient exported to us more than it did last year, and in spite of the temporary disorganization of trade agencies in Japan during September the value of our imports from that country showed no decline.

A single fact, says an old story, is worth more than a bushel of theories. Here are dozens of facts, facts of overwhelming importance in contradistinction to every free trade theory advanced during the discussion of our present tariff bill. Under the free trade Underwood bill our industrial interests at home were hampered and restricted and our foreign trade was curtailed except during war activities, while under a protective tariff bill, in some respects not yet high enough, our foreign trade, both imports and exports, is leaping forward at a rate which must stagger free trade advocates.

Moreover, this foreign trade is giving us an enormous increase in revenue. Though a large proportion of our imports are without duty, the aggregate volume of duties collected is far and away beyond anything which this country has ever known in the past from that source.

No better evidence of economic improvement throughout the world could be asked than is to be found in the increasing volume of our foreign trade. The world is buying more from us than ever before, and selling more to us. At

the same time the foreign trade of other countries is increasing, and reports from Europe and from the Orient alike show a steadily advancing economic betterment. Our tariff has been a fertilizing power for developing the growth of our foreign business. It has more than sustained every argument advanced in its behalf while it was under discussion. The results are an overwhelming proof against every argument advanced by those who fought against its adoption.

CONGRATULATIONS TO FEDERAL RESERVE BOARD.

HEARTY commendation of the Federal Reserve Board's present management is due for its action in following the decisions of the United States Supreme Court without any attempt by any legal chicanery to get around these plain, straight decisions. Governor D. R. Crissinger of the Federal Reserve Board, in a letter to Mr. L. R. Adams, general secretary of the National and State Bankers' Protective Association, writing under date of October 25, said:

"As you know, all Federal Reserve Banks have been advised of the Board's ruling that the use of agents other than banks for the purpose of collecting at par items drawn on non-par remitting banks be discontinued."

Thus the Federal Reserve Board has completely reversed the policy pursued under its former management in the matter of dealing with banks which did not accept its views as to par clearance. The position of the MANUFACTURERS RECORD on this point is, therefore, overwhelmingly sustained by the Supreme Court of the United States and its rulings are accepted by the Board itself. Any criticism which has been made against the views of the MANUFACTURERS RECORD on this point should now be forever stilled by the fact that the Supreme Court has taken exactly the grounds that the MANUFACTURERS RECORD took and that the Federal Reserve Board, under its present management, is following the decisions of the Supreme Court.

SOME MISTAKES IN SECRETARY MELLON'S PLAN FOR TAX REDUCTION.

IN commenting on the plan for proposed reduction of taxation as made by Secretary Mellon we suggested that in the main his proposition should receive immediate favorable action by Congress, but some details do not, we think, merit favorable action.

Secretary Mellon suggests that the limit of the deduction of capital losses should be 12½ per cent merely because the tax on capital gains is limited to that figure. The two, it seems to us, have no relation whatever to each other. A capital gain is an actual gain out of which the taxpayer can afford perhaps to pay a portion of the profit; but a capital loss takes from him the power to pay an income tax on what he does not have. Certainly it seems that the business man who shows an actual capital loss should not be required to pay an income tax on his losses, for that is practically what it would mean. The capital losses in a business cannot, we think, by any possible justification be excluded from a full accounting to the Government for taxation without doing very grave injustice to the man or the concern who has had to suffer these losses. A loss of capital is so directly opposite to a gain of capital that we cannot see any possible logic or justice in Secretary Mellon's position on that point.

Secretary Mellon would also limit the deductions from gross income for interest paid during the year and for losses not of a business character to the amount that the sum of these items exceeds tax exempt income of the tax payer. This position is, we also think, erroneous. A man should not be required to pay a tax upon the interest which he pays for carrying on his business. That interest is just as definite a

lessening of net income as is the payment of salaries. It is a burden which the tax payer must bear, and should no more be taxed than should the salaries paid in the operation of a business, or the purchase of the raw materials.

"Losses not of a business character" is a very indefinite term. Most men are engaged in business operations other than those in which their main interest is centered. The progress of America has been largely due to the fact that men branch out into other lines of activity, some of which are wholly disconnected from any association with their chief business interest. But out of this activity will come the development of many other lines of business, and the losses incurred in these operations should, we believe, be a legitimate deduction from the net income. In his regular business a man may have earned a considerable profit and more than lost it all in some outside business operation. The net result would be that he is poorer at the end of the year than he was at the beginning. Surely his poverty should not be taxed.

These two suggestions of Mr. Mellon's cannot, we think, appeal to the judgment of the country. They would be merely a continuance of some of the annoyances and losses suffered by honest tax payers in trying to comply with some of the almost impossible regulations of the income tax service.

With a few minor changes such as here suggested, Mr. Mellon's plan should receive the approval of Congress immediately upon its assembling, in order that these reductions may, as he suggests, begin with the coming January.

BETTER CROPS IN SOUTH CAROLINA.

SOUTH Carolina comes to the front with a decided betterment in agricultural production this year as compared with 1922, just as North Carolina has done as we pointed out last week.

Mr. B. B. Hare, South Carolina Agricultural Statistician of the United States Department of Agriculture, reports that all principal crops in South Carolina show an increase in production over last year except sweet potatoes and sorghum for syrup.

The preliminary estimates of production of leading crops in 1923 and 1922 for South Carolina show the following:

PRELIMINARY ESTIMATES OF LEADING CROPS

Crop	1923	1922
Corn, bu.	32,600,000	29,908,000
Wheat, bu.	1,903,000	1,322,000
Oats, bu.	10,224,000	9,743,000
Rye, bu.	77,000	61,335
Potatoes, White, bu.	3,136,000	2,553,000
Sweet Potatoes, bu.	9,118,000	9,568,000
Tobacco, lbs.	73,000,000	57,600,000
Sorghum, gal.	1,640,000	1,774,100

The cotton report issued November 2 as of October 25 shows 1.5 per cent of the cotton planted and standing July 1 as abandoned, there being no cotton whatever picked from the abandoned acreage. The estimated production is placed at 740,000 bales, as against 530,000 bales last year.

GERMAN TIN SOLDIERS INVADE ENGLAND.

ALTHOUGH German soldiers did not succeed in invading England during the war, German manufacturers of tin soldiers are invading England very heavily at the present time. A report to the Department of Commerce from the United States Consul at Hull, England, states the official figures show that \$750,000 worth of German toys, largely tin soldiers, have been imported through the port of Hull alone. These toys, intended for Christmas activities, include dolls, miniature musical instruments and other toys as well as the tin soldiers, all "Made in Germany."

The German tin soldiers are said in this report to have won uncontested mastery of the market in England. Germany failed on the battle field to conquer the world, but is doing its utmost and in many respects very successfully to destroy the industries of England and of other countries.

Railroads Making a Mistake on Homeseekers Rates to the South.

MR. W. H. HOWARD, of Atlanta, chairman of the Southeastern Passenger Association, in a letter to the MANUFACTURERS RECORD, referring to an article in this paper in regard to homeseekers rates, writes:

"With respect to the question of homeseekers fares into the Southeast: I beg to say that while the carriers in this territory recently had under consideration the authorization of rates upon a basis of one and one-third fare for the round trip, under the conditions set forth in the memorandum furnished by Mr. H. R. Richardson of Jacksonville, as appearing on page 66 of your November 8 issue, they have given further consideration to the matter, and I have been authorized, as you may possibly have noticed from Associated Press dispatch of this date, to announce that on the first and third Tuesdays of each month during the period April to September next, inclusive, homeseekers' tickets good for five or more persons traveling together on same ticket will be sold from the Potomac, Ohio and Mississippi River gateways Memphis and north, to selected destinations in the Southeast on basis of *one fare plus \$2.00* for the round trip, with limit of 21 days from date of sale; each ticket to be good for stop-overs on both the going and return trip at stations within the state in which the destination of the ticket is located.

"These arrangements will be tendered for basing purposes to the carriers north of the Ohio and Potomac and west of the Mississippi Rivers, and their co-operation will be solicited in authorizing the sale of tickets from points in the North and West into the Southeast on basis above outlined.

"The Southeastern carriers are, of course, anxious to build up the territory which they serve, and to co-operate as far as they consistently can with other organizations interested in development and settlement work.

"It is trusted that the homeseekers' arrangements above outlined will be of assistance in that direction."

While the decision now reached, as reported in Mr. Howard's letter, is an improvement over the first plan as published by us on November 8th, it is yet wholly inadequate for the situation. These homeseekers excursion rates, according to this plan, will be good only from April to September, whereas, pre-eminently the time of all times for drawing people into the South to study its resources is during the fall and winter months.

In the summer the northern and western farmer has no opportunity to leave his work to investigate the possibilities of the South. In the winter time he would have ample opportunity for that purpose. We presume that this limitation of time is due to the fear of some of the railroads that these homeseekers rates, if made good during the winter, would perhaps cut out a few fares of tourists traveling South for the winter. That is not a worthy plea or motive, nor does it justify a limitation of these homeseekers rates to the summer season. To all intents and purposes the homeseekers rates might almost as well be abandoned if they are to be confined to the summer season. This action shows a narrow-minded view of the whole situation. It is unworthy of Southern railroads, and should be vigorously and aggressively fought by every business organization in the South seeking the development of this country by attracting settlers.

Mr. N. D. Maher, President of the Norfolk & Western Railway Co., in a letter to the MANUFACTURERS RECORD under the date of November 15, wrote:

"Referring to your letter September 1 and my letter of September 6, regarding homeseekers' fares.

"I sent you copy of a letter dated October 9 which I wrote Mr. H. H. Richardson, member of the Homeseekers' Rate Committee of the National Association of Real Estate Boards,

this letter being in reply to one he wrote me September 29.

"For your information I enclose copies of some further correspondence I have had with Mr. Richardson about this matter of homeseekers' fares.

"In this connection, I think it well to reiterate the statement in my letter to you of September 6—that owing to the geographical position of the Norfolk & Western Railway, we enjoy an exceedingly small Florida travel, and hence could not possibly be a factor in the establishment of such fares."

To Mr. Maher's letter the following reply was made by the editor of this paper:

"I am in receipt of yours of November 15 in which you refer to the fact that the geographical location of the Norfolk & Western Railway is such that homeseekers rates over your line could not be of advantage to Florida travel.

"My correspondence and my editorials on the subject have no special reference whatever to Florida. It merely happens that Mr. Richardson is acting for the Committee of the National Association of Real Estate Boards, and he happens to be located in Florida. But the point I have been making constantly is that homeseekers rates should be granted to the entire South. Virginia needs homeseekers from the West and Northwest fully as much as Florida does. Indeed, Florida is already drawing so many people from other sections that it could afford to do without homeseekers rates much better than the upper part of the South. Virginia and the Carolinas and Georgia, and Alabama and Tennessee and Mississippi, all need homeseekers rates, and I take the liberty of saying that the railroads in not giving rates for homeseekers, good every day in the year, and for any part of the South, are failing to utilize an opportunity for the development of the territory tributary to them at the most strategic time, or the most psychological time, which has ever existed for turning population into the South.

"There are tens of thousands of people in the North and West to whom Virginia and the Carolinas would appeal probably more than Florida. The character of agricultural work in these states is very much in line with what these people have been doing in the past. In Florida an entirely different kind of agriculture is to a large extent carried on. Thousands of people do not want to go as far South as Florida or Texas, but with proper activity on the part of railroads could be induced to locate in the upper part of the South.

"I am at a loss to understand how in view of the editorials which this paper has published on the subject, you gained the idea that what we were advocating in the way of homeseekers excursions was merely for Florida travel. That is entirely contrary to what I have sought to impress upon our readers. I believe the time has come when the railroads of the upper part of the South, of the Central South, and of the far South have opportunities such as they never had before to bring population from the North and West into their territory. There is room in Virginia for hundreds of thousands of farmers in addition to those that are now there, for hundreds of millions of capital for investment in industrial pursuits in addition to what is now thus invested. Virginia is sleeping on billions of possibilities, unutilized and undeveloped except in part, because its people and its railroads have never thoroughly awakened to the opportunities which have been offered in the past, and still more freely offered in the present.

"There is no more reason why Pacific Coast railroads should carry on their aggressive campaign for settling people in California than there is why the railroads of Virginia and the upper parts of the South generally should do similar work and on a similar broad scale. Every railroad that fails to do so is in my opinion failing to do its full measure of

work for the states through which it runs and for its own security holders.

"Therefore, I am not at all thinking of whether the Norfolk & Western handles any Florida travel or not. I did not even take that into consideration for a moment, and did not suppose that you would. My endeavor has been to suggest to the railroads of the whole South, from Virginia to Texas, to begin an aggressive work for bringing men of money and of brain and brawn into this section, into all parts of it, for the purpose of utilizing its vast resources to a greater extent than they are being utilized at present; and this I am sure could be largely helped by low homeseekers rates, and by the same kind of intelligent, broad-minded campaign as that which has been carried on for years by the railroads of the Pacific Coast to their great profit and to the enormous betterment of California and Washington and Oregon."

We repeat the statement made to Mr. Maher that every part of the South needs homeseekers rates, and that it is incumbent upon every railroad in the South to do its utmost to bring settlers into the South. The winter season is the only time in which farmers in the North and West could by any possibility in any large number get away from home duties. And these homeseekers rates should be made to cover the twelve months of the year and ample time should be given for a thorough investigation of the various sections of the South to which these tickets would be made available.

It is entirely possible for the railroads to save themselves from having tourists going South purely for pleasure availing themselves of these low rates, but it should be the aim of every railroad agent to do his utmost to encourage people to go South and study out the land, and if the railroads will do their part in a broad comprehensive way, and not in the niggardly way in which they have planned this homeseekers excursion business, great good can be accomplished, but very little good can result from the plan outlined by Mr. Howard.

IT WOULD NOT BE FOR THE GENERAL GOOD TO CLOSE ANY COAL MINES.

REFFERRING to the order of the Interstate Commerce Commission directing the railroads to abandon the practice of distributing assigned or private cars to coal mines in excess of the pro rata allotment of cars for other mines in the same region which do not receive private cars, L. S. Evans, president of the Eastern Coal & Export Corporation, Richmond, Va., has suggested in a recent issue of "Saward's Journal," a coal trade weekly publication, that as assigned cars benefit the mines loading them, why not set about extending their use that more mines, and eventually all mines, may enjoy the same benefits. He says that this would have effects as follows: (1) The quality of coal needed by consumers would be regularly produced. (2) Prices would be reasonable and stabilized. (3) The number of operating mines would be fixed by consumptive needs. (4) The number of men employed would be fixed by consumptive needs and they would have regular work.

Mr. Evans further says it is not to be expected that all users of coal will eventually own cars, but such ownership should be encouraged and extended. The cars of all coal roads should be pooled and then distributed among the railroads of the country, the number allotted to each depending upon the consumption of coal thereon. Under this arrangement the distribution of the country's coal supply would be wholly in assigned cars. Mines would not receive cars unless they had orders to consign them to destinations on roads from which empties had come in exchange for which loads were to be returned. Since the requirements of consumption would determine the movement of cars to coal fields, the quantity of coal needed by consumers would be regularly produced.

Continuing, Mr. Evans observes that in numbers and ca-

pacities the mines greatly exceed consumptive demands; therefore the requirements that they have orders to obtain cars would limit the number of operating mines to consumptive needs.

"The determining factor," he says, "in this process of elimination would be competitive fitness and the mines surviving would have the lowest costs and most reasonable prices. Fewer men would be needed to produce the coal but they would work full time and with greater efficiency."

Mr. Evans' argument is very interesting, but as to pooling of coal cars, the idea of pooling all cars was suggested in a contribution to the MANUFACTURERS RECORD seven years ago, and comparatively recently it has been put forward in the Warfield plan for ownership and use of cars so that distribution during crop moving season and other periods of heavy traffic movement may be more satisfactory and complete. As for Mr. Evans' idea of extending the use of assigned cars, his advancement of the suggestion will doubtless cause a howl from mine operators whose business would be adversely affected, as he says some would be, by the fulfillment of his plan. The question also arises: Would it be to the best advantage of the country to close any mines which are now able to operate, or even to prevent the opening of new mines which (although output from them may not be necessary), might be able to work to the general benefit of the consuming public? The Interstate Commerce Commission not long ago refused to grant authority to the Virginian Railway to build a coal spur only a mile long to a new mine, upon the ground that the output of the mine was unnecessary, and the case is up for rehearing: The use of such arbitrary power is plainly not for the common good.

Besides, if the number of operating mines be reduced by the adoption of artificial means such as are proposed by Mr. Evans, would not that be disadvantageous to the general public? The number of mines would be reduced but would there be any guarantee whatever that the price of coal would not be artificially advanced by a combination of the mines remaining in operation? It is probable that instead of the price of fuel becoming reasonable it would become more unreasonable. That competition is the life of trade is as true now as ever and although it may seem desirable to bring about conditions that would cause many of the surplus mines to close down, it would be better to allow the workings of the inexorable laws of economics to bring about such a result than to employ artificial means for the attainment of the object.

During the coal strike many so-called surplus mines operated to the benefit of the public. It is true that some made huge profits for the time being but that was economically possible because the public required coal and they and other non-union or open shop mines saved the day for the railroads and for industry. Shut them up by any method whatever and the chains of union organization upon the production of coal would be drawn tighter than ever.

Mr. Evans' proposition does not seem to be desirable although his object may be so.

COTTON CONSUMPTION.

THE total consumption of cotton in American mills during October amounted to 541,825 bales, exclusive of linters, compared with 533,744 bales for the same months last year. Of this total 357,673 bales were consumed in the cotton growing states against 346,205 bales consumed in this section last October.

These figures show that while the increase in Southern consumption was a little over 11,000 bales, the net increase for the entire country was 8100 bales, indicating that the consumption in Northern mills was considerably less than for October last year.

Views of Bankers on Actions of American Bankers Association at Atlantic City Meeting.

ON October the 18th and 19th letters were sent by the MANUFACTURERS RECORD to the 3100 bankers who attended the Atlantic City Meeting of the American Bankers Association asking if they individually endorsed the ringing declaration of their Association as to the world's need of "moral and spiritual regeneration" as the only sure foundation for economic progress and also the address of the retiring president in behalf of law and order. Only ten bankers have replied.

At that meeting a lengthy declaration was adopted in the course of which it was said "that the primary need of the world is moral and spiritual regeneration as the essential basis for economic recovery. * * * To the end of a better understanding, not only of the purposes of business, but of life, that a better order may be established among men, the bankers of America dedicate themselves in united effort to attain and maintain those ideals of civilization upon which alone human society can soundly rest."

At the same meeting the retiring president, Mr. J. H. Puelicher, said:

"Socialism, communism, anarchism, syndicalism, I. W. W.ism are seeking to make converts in their attacks upon the very foundations of our government. Although every human being hopes for ultimate success, warfare against the successful is volubly ranging. The dreamer, the usually honest but usually impractical, the demagogue, never honest but often too practical, the professional reformer for personal profit, are all preaching the gospel of unrest, of class hatred, of disrespect for law and order, of discontent with honest endeavor."

Commenting on these two statements, one by the bankers as a body and one by the retiring president, the MANUFACTURERS RECORD said:

"The American Bankers Association has lifted high above all petty questions of politics, of economics, of ordinary business problems, the one great outstanding, all-embracing truth that for the safety of business and for the safety of civilization, the world needs and must have, a world-wide moral and spiritual regeneration."

Referring to the address of Mr. Puelicher, we heartily commended his demand for a respect for law and order and pointed out that there was a far greater danger of the destruction of our government from the violation of law by supposedly respectable men, men of affairs and of business prominence, than there was from the activities of the dreamer, and the demagogue and the bolshevist, and we added:

"He who violates one law because it does not suit his convenience to comply with it is teaching all other men to violate any law which does not suit their convenience."

"Are the bankers of the country who listened to Mr. Puelicher's stirring address, and to others of a similar tenor, ready to stand up and be counted individually and collectively as pledging themselves to carry out the policies thus advocated, and pledging themselves that under no condition will they knowingly violate any law, and by doing this strengthen the moral and legal forces of the entire nation and safeguard the future of property and capitalistic interests which they so largely represent?"

A copy of these editorials was mailed to the 3100 bank-

ers who attended the Atlantic City convention. Their attention was called to the statements which they had made in their declaration and to the address of Mr. Puelicher, and they were asked if they were willing to express an opinion as to whether the bankers were really in earnest in the position taken and ready to stand up and be counted as pledging themselves to the policies advocated and to the obedience to law. From them we have received ten replies, and the query is, are the other 3090 bankers unwilling to express their position on a question of such vital interest?

That question, however, is asked by Mr. H. W. Snow, Jr., cashier of the Buffalo Branch of the Federal Reserve Bank of New York, who says that he will be interested to know how many of those present were willing to place themselves on record in writing in reply to our request. We cannot, for a moment, conceive that the other 3090, who did not respond to the request, are all unwilling to commit themselves and yet they have missed a splendid opportunity for bankers individually to register themselves as in favor of their declaration of principles adopted at Atlantic City, and in favor of individual obedience to law.

Some of the letters received are extremely interesting.

Mr. J. M. Dinwiddie, president of the Cedar Rapids Savings Bank and Trust Company, Cedar Rapids, Iowa, presents his view of the matter in a remarkably striking way. In reply to our letter he writes:

"The trouble with the average American and that includes the bankers and those in attendance at the American Bankers Association, is that they do not seriously consider at all times what they are pledging themselves to do. The declaration mentioned by you was a fine thing and I approve it. It was too lightly passed, however, will be lightly considered and the average man will not make it his business to think very seriously of it hereafter, as past experience has shown.

"The very next day after that was passed, I ate dinner in the lunch room of a prominent New York bank with a number of the officers, at which was present a venerable officer who stated positively that he had not voted to exceed half a dozen times in his life, because as he put it, what was the use. My remark that he was utterly selfish in that position, met with fair response from the others there, but this gentlemen still insisted that things would go so and so regardless of what 'little' he could do. That is too much the position taken by too many men.

"It is all nice to talk about dedicating yourself to united effort to maintain ideals, etc., but it is too often talk only. You have not seen anything yet done by the persons who adopted that resolution to further its sentiment, have you? I venture the assertion that it is absolutely necessary to do something further than simply to dedicate oneself, and whether one dedicates himself or not, if he does what he ought to do, he can forget the word 'dedicate' and bring things to pass. The whole country seems to have gone rather money mad, than mad in the way that would produce reforms, and I think the question is very pertinent as to whether the bankers who adopted that resolution are ready to **stand up and be counted individually** or otherwise, not only as pledging themselves, but as determining to carry out what they pledge.

"I don't believe you ever attended a bankers convention but that just such sentiment as this was 'adopted and then forgotten.'"

Mr. F. I. Kent, vice president of the Bankers Trust Company of New York, is emphatic in his views that the bank-

ers meant what they said in their declaration. He writes:

"Your letter of the 19th instant, together with copy of MANUFACTURERS RECORD of October 18th, received and I was much interested in looking it over and was also extremely pleased to note the impression created by the declaration of the American Bankers Association. You are entirely right in your understanding that the bankers meant what they said."

President H. G. Townsend, of the Fitchburg Bank and Trust Company, of Fitchburg, Mass., says:

"I wish to congratulate you on the two strong editorials to which you call my attention, and I beg to say that we are thoroughly in sympathy with the attitude you take in them. So far as this bank is concerned we purpose to live up to the declaration of the American Bankers Association."

Vice-president W. C. Pollock, of the First National Bank of Bluefield, Bluefield, W. Va., writes:

"I am thoroughly in accord with your opinion as expressed in regard to the observance of all laws. I see no reason why any exception should be made in the case of the Eighteenth Amendment. It is, in my opinion, a very important law of the country and should be strictly and fearlessly enforced without regard for politics and I believe there should be no exception made in the case of men who are 'higher up' in the business world."

President Francis M. Savage, of the Northwest Savings Bank, Washington, D. C., criticizes very vigorously the action of some bankers in Washington who seek to get around the law in regard to branch banking by what he regards as an evasion of it, and in doing this teach other people to evade every law which legal chicanery can find a way to avoid. In his letter Mr. Savage says:

"Answering your question 'Whether there is not greater danger to capitalism from violation of law by men of affairs and social standing, than even from the activities of socialists and anarchists,' I would say that apparently here in Washington some men subject to your description, seem to regard themselves exempt from the moral law rather than responding to the eloquent plea 'to dedicate themselves in united effort to attain and maintain those ideals of civilization upon which alone economic society can soundly rest.'

"When a bank goes into court claiming exemption from the law of a state because of being a federal corporation, is it a law-abiding citizen?

"The Federal law allows a national bank to absorb a state bank with existing branches. When a bank acquires a state bank through friendly interest, or an agency, and the acquired bank opens a branch and it is converted into a branch of a national bank is it not an evasion of law? To use a bill that people believe was initiated in order to prevent an evil because of its technical wording instead of the accepted statute for the government of National Banks, Is that good faith and obedience to law? To make statements that are not verified and not believed to be realities, Is that obedience to law?

"To engage in a character of banking not good for a community, condemned by its moral sensibilities of right and wrong, in brief to commit acts condemned by the accepted standards of commercial ethics, Is that good citizenship?

"Do such acts fit in with the following statement of President Coolidge . . . 'obedience to law, by the very nature of our institutions, are not matters of choice in this republic, but the expression of a moral requirement of living in accordance with the truth?'

"Are such not subject to your statement that, 'He who violates one law because it does not suit his convenience to comply with it, is teaching all other men to violate any law which does not suit their convenience?'

"Can they, as well as other members of the American

Bankers Association, as you ask in a startling way, be ready 'to stand up and be counted individually and collectively as pledging themselves . . . that under no condition will they knowingly violate any law?'

"Indirection, the lack of good faith or any sort of immorality by the heads of organizations, tends to demoralize young men, especially those subject to daily temptations. Under such circumstances, in what sort of a position is the head of a bank to exact fidelity and punish wrong?"

Mr. Puelicher, the retiring president of the American Bankers Association, stands foursquare in his reply on the necessity of obedience to law even when some laws may be contrary to the individual views of men. In his letter he says:

"Thank you for your letter of the 19th, enclosing reprints, among which I find 'Where Do the Bankers Stand on Obedience to Law?'

"It has always been my feeling that if we want others to respect the law, it must have our unqualified respect, and when I say the law, I mean all the laws that are presently the laws of our country. If there are laws which we do not like, it is our privilege to do what we can toward changing them, but until they are changed, they must be obeyed by bankers as well as by all other citizens. It is unfortunate that people who violate some law or laws with impunity yet hope that all other people will so respect all law that neither property nor person will ever be endangered."

Mr. H. W. Snow, Jr., cashier of the Buffalo Branch of the Federal Reserve Bank of New York, whom we have already quoted, in expressing his appreciation of the request which was made to the bankers of the country, and his belief that the banker should set the example by obeying the laws of the land, writes:

"I firmly believe that the bankers of the nation should not only raise and keep their standards high, but that they should practice what they preach as well, especially in the matter of obeying the laws of this country regardless of whether or not it suits their personal convenience.

"I note that you have written to every banker registered at the convention and should be interested to know how many of those present were willing to place themselves on record in writing in response to your request."

Mr. W. J. Humphrey, president of the Wyoming County National Bank of Warsaw, New York, says:

"I am in entire accord with the idea that all laws are to be kept, no matter what opinion I may have concerning their desirability."

President E. A. Reddeman, of the Wisconsin Bankers' Association, Milwaukee, expresses his opinion in hearty commendation of the editorial on the subject as follows:

"I have read your reprint with a good deal of interest and wish to compliment you on the splendid manner in which you have written up the fine spirit shown at the recent Bankers' Convention."

Mr. Luther A. Smith, trust officer of the Bank of Hattiesburg, Hattiesburg, Miss., says:

"We have read with special interest your editorial touching upon the announced program of the American Bankers' Association.

"We think that you have struck the keynote in this editorial and we are in hearty accord with the ideas therein expressed.

"In this connection we are pleased to state that we are regular subscribers to your splendid magazine and appreciate it very much."

These letters are interesting and encouraging. They all sustain the position taken by the Bankers Association in its declaration of the members individually dedicating themselves to the high ideals set forth and to the maintenance of law, but we are at a loss to understand why only ten

men out of 3100 were sufficiently interested in a matter so vital to their own business and to the safety of this country as to express an opinion in reply to the questions asked. Perhaps it was in part due to an oversight, or in part due to indifference or unwillingness to express a direct opinion for publication. Perhaps there may have been some few of these bankers, who themselves have been violating some of our laws and whose conscience would not permit them to uphold the position taken by their Association and at the same time were unwilling to say publicly that they did not themselves take the high ground expressed by the Association through its declaration of principles. We hope the number in that class is extremely small. Or perhaps they were unwilling to reply to the question as to whether there was not more danger to our country through disobedience to law on the part of men of affairs than from all the demagogues, anarchists and bolshevists who roam the country and rant against business interests.

The men most vitally concerned for the maintenance of business, for the safety of property, for the upholding of this government, are the men of affairs who have a thousand times more at stake in the maintenance of law and order than have the wild demagogues or the loud-mouthed anarchists and bolshevists.

We again ask the question, are the bankers who attended the Atlantic City convention, the 3090 who have not replied to our query willing to go on record as pledging themselves to dedicate their lives to the maintenance of the high ideals set forth in saying that there can be no broad, world economic safety "except through the moral and spiritual regeneration of the world?"

And are they willing to say that they dedicate themselves to an absolute maintenance on their own part and as far as their influence may go on the part of others with whom they may be identified, of obedience to law, whether the laws which are on the statute book suit their individual convenience or views or not?

AGGRESSIVE WORK FOR WATERWAYS THAT SHOULD BE EMULATED EVERWHERE.

ON November 22 and 23 there is to be held at Memphis, Tenn., a convention of the Mississippi Valley Association to formulate plans to develop our waterways for transportation purposes, supplementing the railroad systems by giving a service which they have been unable to provide. This Association, of which James E. Smith of St. Louis is president, is composed of farmers, merchants, manufacturers and others who are interested in the attainment of the fullest advantages of our great natural waterways as means of transportation and communication. President Smith was very active a year ago in behalf of the River and Harbor Appropriation Bill at Washington and it was largely due to his efforts that it was passed, carrying the full appropriation requested, by a vote of three to one. This year he is again in the field leading the Association for a continuance of the valuable work begun and out of the convention it is expected that there will come a definite plan to provide sufficient money in a lump sum to complete all projects which have been adopted to improve the Missouri, the Ohio, the Illinois and the Mississippi rivers. These include a six foot channel in the Missouri River from Kansas city to St. Louis, a nine foot channel in the Illinois and the Mississippi rivers from Chicago to Cairo, Ill., and a nine foot channel in the Ohio River from Pittsburgh, Pa., to Cairo.

The Association further reports that in this work it is supported by a growing sentiment among the people of the Mississippi Valley and their representatives in

Congress and it points to the accomplishment of the Mississippi and Warrior rivers barge line which last year, it is stated, saved shippers \$850,000 in transportation costs, although it is limited by inadequate equipment and is also lacking in dock facilities.

It is claimed that a saving of 75 cents a ton could be made on coal shipped from the Illinois fields to Chicago if the fuel was sent by water instead of by rail. That city is said to be using now 30,000,000 tons of coal from those mines per year and consumption of this fuel there is increasing at the rate of 1,000,000 tons annually. If only half of this coal were shipped by water there would be \$11,250,000 saved in a year and this, it is claimed, would within two years pay the cost of making a nine foot channel from Chicago to Grafton, Ill., in the Illinois River. Besides, there is much other traffic which would also profit by water transportation. Illinois has already appropriated \$20,000,000 to complete its part of the proposed waterway from the Lakes to the Gulf.

The program of the Association is to secure an appropriation of at least \$60,000,000 for rivers and harbors in 1924, with \$2,000,000 for the Mississippi River between Cairo and St. Louis and \$5,000,000 for the Ohio River. Furthermore, a special appropriation bill is to be sought providing for these various river projects on a continuous contract basis and carrying a lump sum sufficient to complete all of them as soon as possible and at least within five years. Appropriation of \$5,000,000 for the Mississippi barge line service to obtain new equipment, terminal facilities and working capital will also be asked. Details of improvements of the several streams are similarly to be worked for unceasingly.

The activity of the Mississippi Valley Association in aggressively working for the attainment of its goals is commended to others interested in river and harbor work. If all other advocates of similar improvements were as vigorously inspired in behalf of their aims, the country would not have to wait long for a full realization of the benefits of water transportation throughout its length and breadth. And it need not be supposed that this development of waterways transportation is going to harm the railroads. On the contrary it will benefit them by relieving them of the duty of carrying large quantities of freight in bulk at low rates and leaving to them the carriage of most of the manufactured products of the country that demand rapid movement and which are able to bear higher freight rates than coal, ore, etc.

An enthusiastic meeting of the Atlantic Deeper Waterways Association was held in Norfolk last week in which strong presentations were made in behalf of enlarged facilities on the part of the government in improving the waterways, especially along the Atlantic Coast. Colonel Earl I. Brown, United District Engineer of Wilmington, Del., in discussing the work under way of modernizing the Chesapeake and Delaware Canal, gave a history of that enterprise and stated that he was confident the Government would complete the improvements projected, at a cost of \$8,000,000, the original estimate. A very earnest effort is to be made to bring about the deepening of this canal beyond the original plan of the government in order to give a deep water outlet from the upper part of the Chesapeake Bay to the Atlantic, a project which has been long and persistently advocated, especially by Baltimore.

There was a general feeling expressed that the farmers of the country have suffered very serious losses by reason of inadequate transportation and its high cost, a condition which could have been met and must be met in the future by better water transportation facilities. Attention was called to the fact that England is building large canals in India at a cost of seven million pounds, while Germany, harassed as it is from within, is completing a canal to connect the Rhine

with the Danube and the Black Sea. And France and Russia are engaged in similar waterway improvements. In this country every effort to improve waterways has been met by the cry of the "pork barrel," a false cry but one which has frightened many congressmen and caused them to hesitate in carrying out improvements which should be made to our waterway facilities.

It is unquestionably true that the railroads have not favored the full development of our waterways, although some railroad officials are wise enough to see the need of deepening our harbors, deepening our rivers and building connecting canals in many cases in order to afford the increased facilities which the country needs.

There was one discordant note, however, struck at the Norfolk meeting by Mr. J. Hampton Moore, president of the Atlantic Deeper Waterways Association, in denouncing the project of the Great Lakes-St. Lawrence waterways enterprise. That enterprise is just as vital to a very large part of this country as are many of the improvements which are favored by the Atlantic Deeper Waterways Association. The carrying out of the St. Lawrence project would be of incalculable value to a vast portion of the United States and thus benefit the entire country. The opposition to this movement by certain interests in New York and Philadelphia and other eastern points, is narrow and selfish to the extreme.

This nation has always been niggardly in the betterment of its waterways. It has done more to deepen its harbors than it has to improve its inland rivers, partly because the railroads themselves have always realized the need of deep harbors for the purpose of handling foreign trade which necessarily passes over their lines and thus there has been a powerful influence always at work for deepening the harbors of the country, while to some extent the same influences have always been at work in opposition to the deepening of the rivers and the building of canals for developing the possibilities of waterways that nature has given us in abundance.

A TYPICAL PIECE OF BAD ADVICE FROM A GERMAN SOURCE.

IT would appear that hyphenated citizenship was not altogether eliminated from the United States by the recent war if there is any basis for a recent appeal made in New York by Dr. William Popcke, president of the "United German Societies" to "the 7,500,000 German-born residents of the United States" to come to the aid of the crumbling Reich. It is more than likely however that this spokesman for Germany has utterly misjudged the present sentiments of most of that class of American citizens to which he attempts to address himself. At least it is to be hoped so, though there are still some fools born of German parentage living here, who feel called upon to try to control American politics for the benefit of Germany.

In a letter to the New York Commercial, C. M. Penfield, Assistant to the Chairman of the American Defense Society, Inc., writes:

"Out of the babble of the propagandists lifting their voices for one cause or another now in America, it seems to me that the event which took place Sunday afternoon, October 21, at the Manhattan Opera House is especially noteworthy.

"At this meeting, according to the press, Dr. William Popcke, president of the 'United German Societies,' speaking to an audience of 5000 people, called upon 'the 7,500,000 German-born residents of the United States' to go to the aid of the crumbling German Reich before it was overwhelmed in the raging sea of internal troubles.

"Dr. Popcke is further reported as saying 'that a flaming protest of all German-Americans must be made'; that President Coolidge, every senator, representative, statesman and politician in the country must receive a communication to

the effect that 'the German-born Americans urge you to focus your immediate attention on Germany's condition.' But why should German-born Americans have an attitude peculiar to themselves on this or any other matter? This is not German-America; obviously that flaming protest of all 'German-Americans,' assuming it materializes, will be heeded, if at all, only by German-Americans in our public life, if there are any American officeholders to listen only to the views of unhyphenated Americans.

"We are surprised at the assertion that there are so many 'German-American' residents. We thought that hyphenated American citizenship had been so thoroughly discredited that it had been purged from our midst. Dr. Popcke reveals that this abomination is still with us to some extent, though not quite to the extent he would have us believe.

"Theodore Roosevelt said: 'There can be no divided allegiance here. Any man who says he is an American, but something else also, isn't an American at all. We have room for but one language here, and that is the English language, for we intend to see that the crucible turns our people out as Americans of American nationality, and not as dwellers in a polyglot boarding house; and we have room for but one soul loyalty, and that is a loyalty to the American people.'

"We would suggest to Dr. Popcke that 'the 7,500,000 German-born residents of the United States,' if they exist, will probably, until the perplexing questions in the United States are solved, devote their energies to 'loyalty to the American people,' and we feel sure that when they will ponder again the words of Roosevelt they will not care to act in any way likely to justify their being classed as hyphenates. We believe Americans of German extraction will prefer to aid our President, our senators, our representatives and our statesmen generally in making the United States successful in the solution of its problems. For such few of them as to whom it may be that their hearts are still in Germany, it is needless to say that their bodies had best be there also."

To us it seems that this appeal of Dr. Popcke is a gratuitous insult to the millions of loyal Americans of German birth. If he is correctly quoted he is simply giving voice to an inherent and presumably ineradicable German stupidity. But the advice is none the less vicious because it is foolish.

LESSONS WHICH EUROPE MUST LEARN IF IT WOULD BE SAVED.

City National Bank

Fort Smith, Ark., October 22.

Editor Manufacturers Record:

Referring to your editorial in the MANUFACTURERS RECORD of October 11, headed "An opportunity for Lloyd George to Learn Wisdom and Do Good":

If there ever was a man who spoke his sentiment in a few words and pictured out the real true situation and condition of Europe, you have done it in that editorial.

You have said in a very few words all that has been said for years and years but with all that has been said and with all the speeches that have been made by the Americans who have visited Europe, not a single one has ever struck the nail on the head as you have, showing the distinction between the Allied countries and America when you said:

"* * * the European countries where every nation is fighting or hating its neighbor, where each one is suspicious of the other, where few, if any, of them dare to open their books of diplomacy, and where governments operated on such a basis of suspicion and false diplomacy for a thousand years or more have taught to their people the spirit of hatred rather than the spirit of love which should prevail."

A copy of it ought to be sent to Lloyd George.

I. H. NAKDIMEN, President.

Reopening of Iron Mountain and Its Influence Upon the Iron and Steel Industry at St. Louis.

NEW GENERATION OF EMPIRE BUILDERS DEVELOPING VAST ENTERPRISES—CONCENTRATION OF LOW GRADE ORES BASIS OF BIG MINING OPERATIONS.

By L. W. BALDWIN, President of the Missouri Pacific Railroad Co.

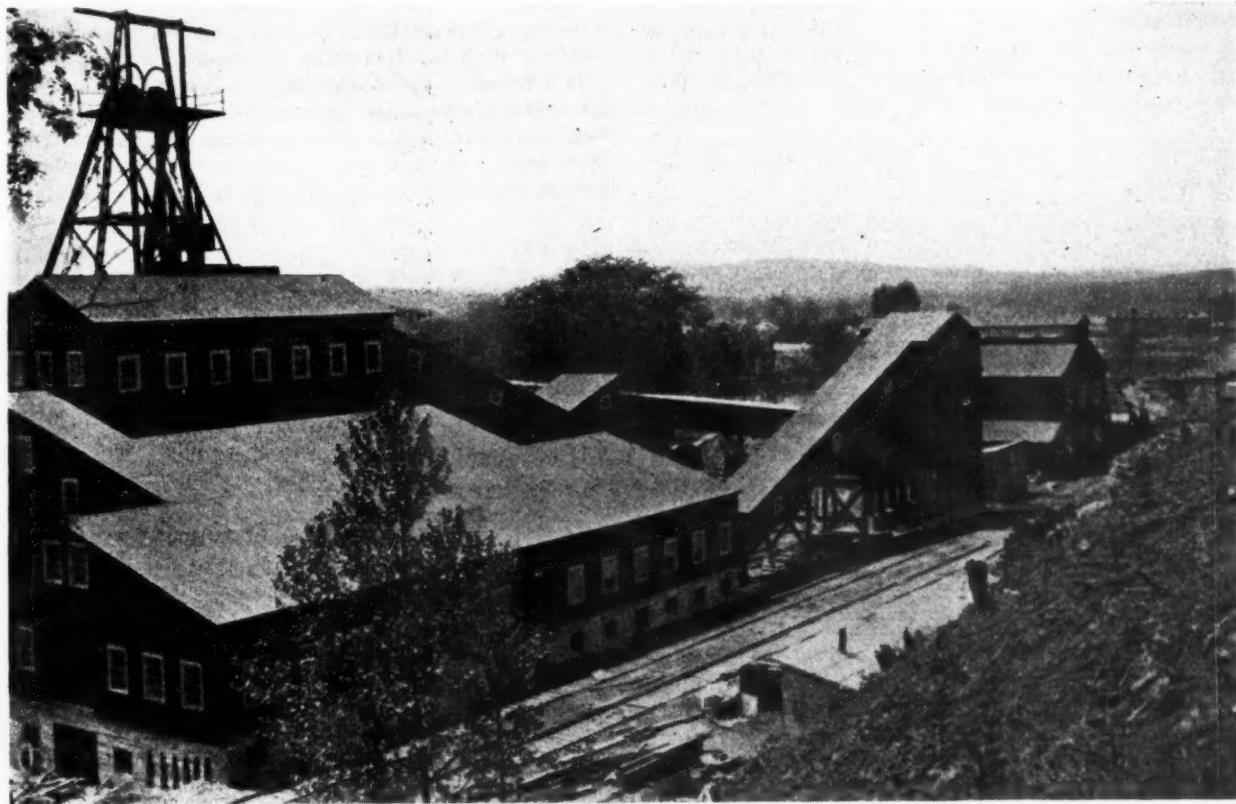
Metallurgical coke, burned from Illinois coal, and Missouri ores from the recently reopened Iron Mountain are largely responsible for the belief of iron and steel men that St. Louis will some day become a center for the iron and steel industry that will rival some of the older centers in the East. Developments at St. Louis since the World War all tend to strengthen this belief. And there is growing today a belief that the development will be most rapid in the next few years.

Experienced steel men like George W. Niedringhaus, Harry Scullin, Clarence Howard and William G. Maguire and financiers like Festus J. Wade, Breckenridge Jones, Jackson Johnson of St. Louis and Clement C. Studebaker of South Bend, Ind., who have been closely connected with all of the development, are confident that the future of St. Louis as a steel center is assured. In fact, there already are in operation at St. Louis now some very extensive institutions

The Niedringhaus plant is one of the most comprehensive in the Middle West. Mr. Niedringhaus has gone to great trouble and considerable expense to convince St. Louis that there is almost within the dooryard of the city all of the requisite basic material for the development of the industry.

There is produced within a radius of 100 miles of the city of St. Louis every necessary basic material, including a portion of the iron ore, the coal for making metallurgical coke, limestone and other raw material, and there now is growing in and around St. Louis a sea of smokestacks over the plants that have been and that are being erected for the purpose of utilizing the iron and steel. All of the basic material is produced along the lines of the Missouri Pacific, which railroad also is serving the new industries.

During the war St. Louis gained a world-wide reputation as a steel casting center. Like Mr. Niedringhaus and Mr.



CONCENTRATING MILL, LOADING BIN AND TRACKS, AND POWER PLANT.

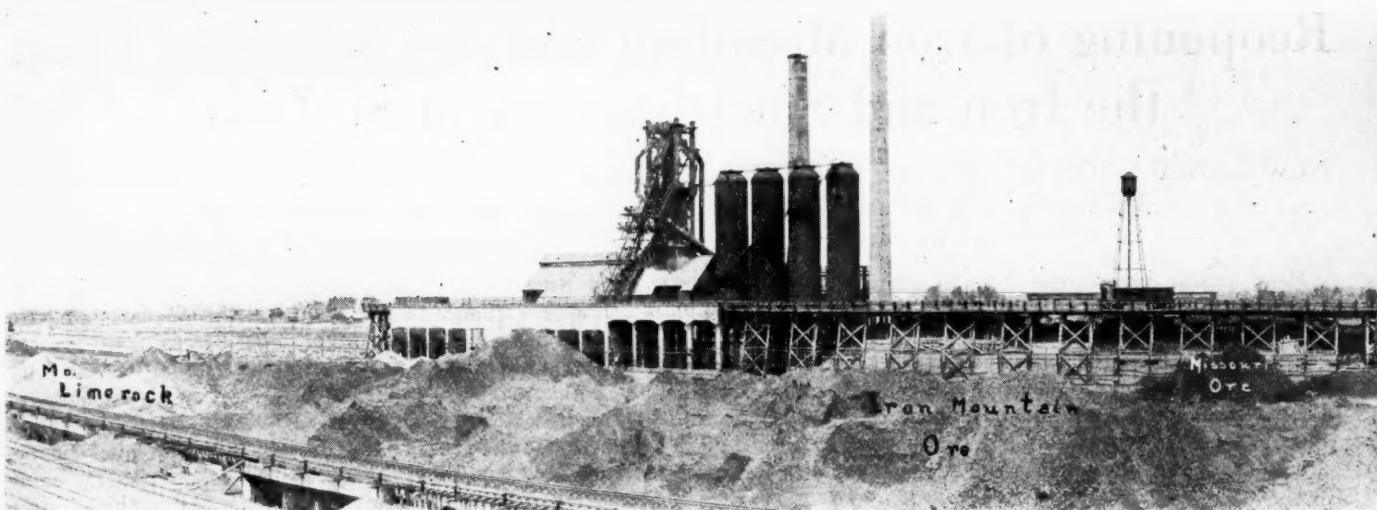
and others are coming. The American Locomotive Company recently purchased 200 acres with a view to erecting a \$15,000,000 plant with a capacity for finishing 150 locomotives a month.

Mr. Howard, who is president of the Commonwealth Steel Company, which makes large castings for railway equipment, is enthusiastic about the future. He bases his views on the successful coking of Illinois coal and the other factors mentioned. Mr. Niedringhaus, who is president of the National Enameling and Stamping Company is even more emphatic and enthusiastic in his description of the pig iron.

Howard, Harry Scullin, president of the Scullin Steel Company, decided that with the successful carbonizing of Illinois coal and the resultant economical reduction of Missouri ores, St. Louis would soon be the center of a vast steel industry. Mr. Scullin not only saw the opportunity, but took advantage of it and added a rolling mill to his plant which already was one of the largest independent steel foundries in the world.

The Laclede Steel Company with plants at Alton and Madison, a suburb of St. Louis, also is rolling strip steel, bar iron and sheets.

Twenty-eight railways or forty per cent of America's rail-



PANORAMA OF IMMENSE PILES OF RAW MATERIALS IN YARDS OF THE ST. LOUIS COKE AND IRON CO. INDICATING roads radiate from the "Mound City." In other words, four out of every ten railway engines for American delivery can leave the St. Louis locomotive plant on the rails of the companies purchasing them, and it is estimated that 85 per cent of the materials going into the building of a locomotive can be produced in the St. Louis district.

Considering the fact that St. Louis already is producing 55 per cent of the open hearth castings manufactured in the United States, the impetus that is being given to the steel industry by these latest developments certainly justifies the most optimistic believer in the future of the "Mound City."

What is true of locomotives also is true of other iron and steel products.

mately 1000 feet with an average thickness of ten feet. Besides all this the primary ore apparently is present in vast quantities. The vein already has been cut a distance of 224 feet disclosing a potential tonnage greater than the approximate 4,000,000 that was taken from the mountain prior to 1920.

The new Iron Mountain Company formed by Mr. Busby, is a closed corporation. The stock has all been subscribed and none of it nor the mine is for sale.

Re-opening of Iron Mountain also is a large factor in this new development. Many romantic stories have been told about how Mr. Busby purchased the old mountain for a stock farm and then discovered more or less accidentally that he had a potential "gold mine."



IRON MOUNTAIN LAKE DAM BUILT IN 1870.

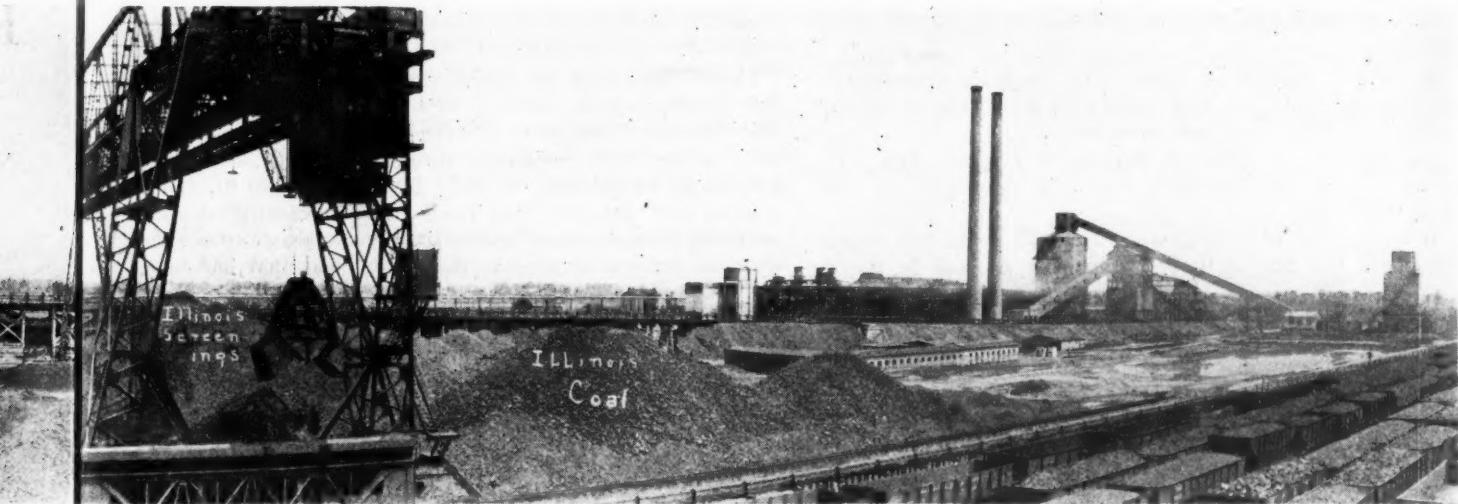
Furnished Water Supply for Old Hydraulic Operations on Big Mountain. Now Furnishes Water Reserve for New Mill.

On account of the nearness to St. Louis of the sources of supply of coal, ore, lime and other materials needed in the manufacture, the city naturally enjoys a cheaper transportation rate than older established centers.

The surface out-crop at Iron Mountain extends 8000 feet in the shape of a horse shoe, going downward approxi-

The facts are that Mr. Busby purchased the entire tract with a view to removing the ore. He realized, of course, that if his plans failed, he could fall back upon a stock raising or other plan.

Old Iron Mountain never was "worked out." Operations were abandoned there in the early nineties because the



SOMETHING OF THE PROCESS THROUGH WHICH THESE MATERIALS GO TO MAKE THE FINISHED PRODUCTS.

then low price of ore and other items made continued mining unprofitable. Mr. Busby went into the business with his eyes open, however, and he expended more than a million dollars in development work so as to be able to mine the low-grade ores, concentrate them at the mine and ship and sell them at a profit.

The history of Iron Mountain has been filled with romance. The mountain, which is in the center of the original tract, was granted to Joseph Pratte, a white man, by Zenon Trudeau, then Spanish Governor of the province of Upper Louisiana, in 1797. The grant was made as a reward for the services of Pratte in settling differences and disputes between the Spanish voyageurs and the native Indians. And with the exception of a single square section, the tract today remains intact as originally granted.

The tract of which the mountain is the center, covers a little more than 28 square miles and contains, to be exact, 17,013.88 acres. The section that was sold out of the area contains a pink granite quarry that has yielded much beautiful stone. After Spain had ceded the Upper Louisiana territory to France and the United States had purchased it from the latter country, Congress confirmed the title to the estate on July 4, 1836, after the United States land commissioners had confirmed the title of the Pratte heirs on June 25, 1833.

Organization of the original Iron Mountain Company was perfected in 1836 but that company never did mine any of the ores. Later, in 1843, the American Iron Mountain Company was incorporated. The first ore was mined and treated in August, 1846. In January, 1848, another furnace was blown in and still another was added in January, 1855.

Prior to 1858 the ores had to be hauled about forty miles over a plank road with oxen to Ste. Genevieve landing on the Mississippi.

Thomas Allen, pioneer railroad builder, constructed the Iron Mountain Railroad, (now the Missouri Pacific), to Pilot Knob in 1858, and the mining operations were carried on steadily until the Civil War put a stop to them.

Following the Civil War, the company shipped more than 1000 tons of ore a day during the period from 1866 to 1873 when the panic of the latter year again halted operations. At that time, there were more than 1500 men on the payroll.

Pig iron production at the mine ceased in 1877, but ore production was carried on until 1892 during which year 78,969 tons were produced. The prevailing price, only \$1.79 a ton, put a stop to operations which were not resumed until Mr. Busby waved the magic wand—the pen with which he signed checks—over the historic old mountain pile of crude ore.

Tradition grew atop of tradition until the commonly accepted story was that the ore had been exhausted. Those men who were familiar with the mountain knew better however. The problem with them was to operate the workings at a profit.

The photograph on page 57 shows the modern mill, ore bins, and concentrating plant which have been erected under Mr. Busby's direction.

Mr. Busby was first interested in the mountain by a young engineer whom he had befriended during the recent World War. Mr. Busby is said to have admitted that at the time he bought the property he did not realize the tremendous possibilities of the ore deposits. He did realize that there were about 10,000 acres of second growth cut-over timber lands and that the land was naturally adapted to stock raising. Considering the possibility of the mining end, he figured that with a three-way proposition of that kind he had every chance to make a profit on his investment.

After the necessary experiment had been made, Mr. Busby financed the construction of a modern plant. For nearly a year, nothing but development work was attempted. A new double-compartment shaft was sunk 329 feet, passing through a forty-foot vein of ore. Electric underground hoists and tramways were installed. All of the modern machinery is operated by electricity or compressed air. A power plant with two 500-horsepower Diesel engines has been constructed and that plant operates machinery for compressing air for drills and for running some of the engines.

A 1500-foot main haulage way has been driven to provide an economical means for getting out the ores. The deposit under development is tilted at an angle of approximately 35 degrees, too steep to permit of haulage and not steep enough to enable the operators to slide the ore. The ore is handled in skips which unload into automatic-dump ore cars which are electrically driven. The train dumps into a 1000-ton bin below the main haulage way. From there the ores are loaded by gravity into 4-ton skips and elevated with an electric hoist to the top of the steel frame, 110 feet above the surface, and dumped into a 300-ton steel bin. From there it is fed into the concentration plant.

A thoroughly modern commercial mill has been erected with a capacity for handling 1500 tons of crude ore a day. That means a possible early out-put of 1000 tons of concentrates. However, the plant is equipped to hoist 4000 tons of crude ore and to feed 3000 tons to the mill, with a crusher capacity of 2000 tons and the remainder of the equipment has been installed with a view to enlarging the capacity

easily, speedily and at comparatively small expense when necessary.

Even the pumping of water into the huge reservoirs is done by electricity. A new pump with a capacity of 500 gallons per minute has been installed.

The picture on page 58 shows the original dam built years ago by the old Iron Mountain Company. It still is in use today.

It is needless in an article such as this to go into details regarding the almost limitless deposits of coal in the Il-

linois fields, and likewise the Roberts process for producing metallurgical coke from Illinois coal has been discussed in the public prints for several years. Suffice it to say that beyond any possible question or doubt there is available in the St. Louis district everything necessary for the development of one of the greatest iron and steel centers in America.

These men were convinced that Illinois coal could be successfully coked. In spite of the advice of experts and the "warnings" of their friends and business associates, they backed their judgment through difficulty after difficulty until on February 2, 1921, the plant of the St. Louis Coal & Iron Company was opened and metallurgical coke produced in commercial quantities was successfully burned with the Roberts process in the great ovens that had been



STEAM SHOVEL LOADING CRUDE ORE FROM SURFACE DUMP.

erected at the Granite City plant across the river from St. Louis on the Illinois side.

Almost immediately after success seemed within their grasp the depression that accompanied the economic readjustments following the war caused heart-breaking losses.

Pig iron dropped almost over night from \$45.00 a ton to less than \$20.00 a ton, and coke dropped from \$14.00 to less than \$5.00. The company found itself coking coal and selling coke for less than the coal cost in the first place. The same thing was true of pig iron. However, with the courage of their convictions these dauntless pioneers operated the plant for a year, sustaining terrific losses.

The tide turned in the fall of 1921 when one of the largest users of coke for pig iron production in the city of Chicago placed a trial order for a large amount of coke for a period of three months. The Chicago company was skeptical regarding the coke that could be produced with Illinois coal and protected itself with a cancellation clause, but at the end of the trial period, after having submitted the coke to every possible test, a standing order was placed for 250 to 350 tons per day over a long period.

The plant was then operating on a basis of 1500 tons of coke per day, and about 500 tons of pig iron. The St. Louis Coal & Iron Company, of which Mr. Maguire is president, has erected a 500-ton capacity blast furnace; that is, the furnace turns out 500 tons of pig iron per day. The average output of the coke ovens is now 1500 tons per day and in the same period the by-products amount to 20,000,000

The entire story of the new development could not be told completely except in a large volume. There would need to be complete chapters telling how a little group of St. Louis men battled away day and night in solving the problem of coking soft coal that is to be found in such great abundance within easy reach of the city. Transportation facilities would need to be analyzed, in order to portray the whole picture. And economic and industrial surveys also would need to be included. Similar combinations of circumstances once diverted away from the St. Louis district a similar development. But modern progress has brought with it a new generation of empire builders whose vision and courage and creative ability rivals those picturesque figures of an earlier day.

For a great new industrial empire is in process of building at St. Louis. New smokestacks are rearing their black silhouettes against the background of prairies that roll down to the junction of the mighty Missouri and the broad Mississippi rivers.

The open hearth steel furnaces are being supplemented by blast furnaces operated with coke made by the Roberts process. And the original group that faced the skepticism

cubic feet of gas, 17,000 gallons of tar and about 50,000 pounds of ammonium sulphate.

Summing up, it is safe to predict that the iron and steel industry is due to grow tremendously at St. Louis in the very near future. And it is with pardonable pride that attention is called to the most important part that is being played in this development by the Missouri Pacific Railroad.

Plans in Preparation for Galveston's \$650,000 Boulevard Hotel.

Plans are being prepared by Paul G. Silber & Co., San Antonio, Tex., for a new hotel to be erected at Galveston at a cost of about \$650,000, and known as the Boulevard Hotel. The building will be 50 by 328 feet, 12 stories, of concrete construction, with a tile roof and concrete, tile and insulite floors. Equipment will include a steam heating plant, five elevators, vaults, mail chutes, steel sash and trim and wire glass. Joseph St. Mary is promoting the erection of the building.

To Build Power Plant at Moss Bluff, Fla.

J. D. Young, of Leesburg, Fla., writing the Manufacturers Record with reference to his plans for the construction of a power house and transmission line at Moss Bluff, Florida, says:

"Contracts have been let to James Leffel & Co., of Springfield, Ohio, for two turbines of 350 horsepower each, and to the Westinghouse Electric & Manufacturing Co., of Pittsburgh, Pa., for two 300 K. V. A. generators direct connected, together with switchboard, exciters, transformers and lightning arrestors, every part to be of the most modern type."

"We will construct 22 miles of transmission line. Victor G. Johnston, who is at present engaged in construction work at McMinnville, Tenn., is to be our construction engineer."

"Our plans are all complete and we will begin actual building of power house and lines not later than January 1 next. We are planning for a later installation of an additional 500 horse power unit which is planned for in the present construction."



\$650,000 HOTEL TO BE ERECTED AT GALVESTON.

Tobacco Profitable to South Georgia Farmers.

Quitman, Ga., November 14—[Special]—Tobacco has proved to be almost a gold mine to the farmers of Brooks county this season. With 250 acres planted they marketed 235,000 pounds on the Hahira market, an average of almost 1000 pounds to the acre. Moreover, it brought a premium of \$3 per hundred pounds over the rest of the 1,300,000 pounds marketed at Hahira.

As an illustration, C. Graham and his two sons planted 16 acres of tobacco. Their net sales amounted to \$4912.31, or an average of \$309 per acre. Their total expenses, including barns, was \$800. They cleared something over \$4000 on sixteen acres of land. And one of the sons averaged 1309 pounds to the acre on eight acres.

When one considers that the average yield in the old to-

bacco districts of North Carolina and Virginia runs from 700 to 800 pounds to the acre, he can see something of the possibilities of tobacco in South Georgia.

Almost every farmer who planted tobacco this season made from \$200 to \$300 an acre on it, and it is expected that Brooks county will have at least 1000 acres in tobacco next season.

Building Active at Harriman, Tenn.

Harriman, Tennessee, reports new buildings and additions now in the course of construction amounting to \$127,000. A new lumber mill has just begun operations, making a total of eight wood working plants in this active Tennessee city. The Harriman Hotel has recently been modernized with twenty-eight additional bath rooms and a new dining room.

New \$500,000 Apartment for Baltimore.

Ground will probably be broken soon for the apartment building to be erected on Charles street in the Homewood section of Baltimore for the Columbia Realty Co., at a cost of \$500,000. The building will be of Georgian design, 70 by 152 feet, ten stories, of reinforced concrete and brick, with



\$500,000 APARTMENT HOUSE TO BE ERECTED.

marble or limestone trimming, harmonizing in its general lines with the buildings of the Johns Hopkins University. It will have a slag roof, oak floors and will be equipped with a vapor vacuum system of heat, electric refrigeration and high speed elevators, mail chutes, metal doors, etc.

Frederic A. Fletcher of Baltimore is the architect and the Weller Construction Co. of Washington, D. C., the general contractor.

How Warships Are Being Cut Up by the Oxy-Acetylene Process.

In the course of a paper read by G. O. Carter, consulting engineer of the Linde Air Products Co., before the Cleveland section of the American Welding Society on October 17, attention was directed to the surprising work now being done by the oxy-acetylene cutting process in connection with the scrapping of warships. Mr. Carter began his remarks by relating that recently at the Brooklyn Navy Yard, Rear Admiral Plunkett, the Commandant, took up an oxy-acetylene blowpipe and showed to newspaper men, moving picture photographers and officials of a large number of salvage and scrap metal firms, how easily battleships could be reduced to scrap by this process. This demonstration was preliminary to the request of the Government for bids on the ships to be retired under the Armament Limitations Agreement and it was the most recent incident in the series of developments which began with the cutting up of the battleship Maine in Havana Harbor about 15 years ago by this method.

Although the oxy-acetylene process was used after the Maine's demolition in numerous instances for reducing steel ships to scrap sizes it did not attract great attention until the Government began to sell obsolete ships after the World War. Then, practically every vessel sold was broken up by this method and now, when all but one or two concerns have finished this work, comes the additional ship scrapping pro-

gram under the Armament Limitations Agreement representing a work of such magnitude as was never before experienced. Scores of ships, from great battleships in commission to new battle cruisers on the shipways are to be broken up, two of the first being the battleships Ohio and Kentucky, which are being demolished at Philadelphia; they are now cut down almost to the water's edge and once more the oxy-acetylene process has proved its worth. A very large firm of general contractors is doing this work, using heavy traveling cranes to move material cut to charging box dimensions from the ships to cars. They also lift parts of the ships intact to the land, where they may be more readily broken up.

These were 12,000 tons ships nearly 400 feet long and 72 feet wide. The armor belt was 16 inches thick on the hulls and 13 inches on the turrets. Each had four 12-inch guns. Altogether the two ships represented 24,000 tons of steel and several hundred tons of brass and copper fittings. The big guns were cut to pieces as they stood in place. Large openings were then cut in the decks to permit removal of the engines and other machinery. Any of these which could not be economically salvaged and sold were also scrapped. About 30 per cent of the weight of the vessels was in their armor, and the armor belt of the hulls and the turret armor were removed to the shore and there cut up. The case-hardening on the outside surface of the armor made it advisable to lay it face down on the ground, but then there was no difficulty in cutting it with either the hand cutting blowpipe or a blowpipe mechanically guided in a straight line machine.

Many concerns who contemplate bidding for vessels to be scrapped have watched this work at Philadelphia with deep interest and there seems to be no doubt that they are convinced that the oxy-acetylene process makes it possible to do the work at a substantial profit. Another outstanding instance of the use of oxy-acetylene was the scrapping of the cruiser Brooklyn a few months ago. In that case practically similar problems were encountered and all were easily overcome. The process, it is remarked by Mr. Carter, through rendering the metal available for re-use, makes possible greater profits to the contractor as well as to the producer of steel products. Thus the Government is able to satisfactorily dispose of its surplus naval armament instead of towing it out to sea and sinking it, which would be expensive, whereas the scrapping process returns at least something of the first cost.

Developments at Babson Park, Florida.

Facilities are being provided at Babson Park, Fla., for the work of the Babson Statistical Laboratory and the construction of one building will soon be well underway. E. Oakman Hood, treasurer of the Babson Statistical Laboratory advises the MANUFACTURERS RECORD that Mr. Babson is planning to make Babson Park one of the most beautiful towns in Florida. "This winter," he states, "we are erecting but one building for bank, offices and stores. It will be of Spanish architecture."

E. M. Parsons & Co., of Boston, Mass., are the architects and W. C. Robertson & Co., of Bartow, Fla., the contractors.

2000 More Acres of Florida Land for Peanuts.

Stuart, Fla.—The purchase of 2000 additional acres of land in the southwestern part of Palm Beach County, Fla., by Brown & Co. of Portland, Maine, for the cultivation of peanuts has been announced. The company acquired a large acreage in this section a few months ago and plans to develop it for the growth of peanuts from which oil will be extracted for the manufacture of a cooking compound. With the acquisition of the additional acreage, it is stated that Brown & Co. now own nearly 75,000 acres.

American Business Experiences a Hundred Years Ago.

THE RECORD OF TRADE CONDITIONS, COMMODITY PRICES AND WAGES, DURING AN OLDER WAR BOOM AND POST-WAR DEPRESSION, WITH LESSONS FOR TODAY.

By EDWIN C. ECKEL, Washington.

Number 3.

(Continued from last week's issue.)

The Infant Industries.

While American agriculture and foreign commerce had prospered during all the earlier portion of the world-war period up to the Embargo year 1808, American manufactures had developed very slowly up to that very time. Hamilton's well-known Report on Manufactures, presented to Congress in December, 1791, had been a carefully written argument in favor of manufacturing and of the policy of encouraging it by duties and otherwise. As regards the actual state of manufactures, however, Hamilton could say but little that was definitely favorable. The iron trade, in some branches, was in good shape, and could hope for further expansion. The use of domestic lead and imported copper in further manufactures was fairly well established. The paper trade was in excellent condition. As for textiles, less could be said. It was doubted if American cotton was of sufficient quantity for general use; perhaps it would be better to let in West Indian cotton free, so as to be sure of a sufficient supply of raw material to induce cotton goods manufacture. Coal was mined in Virginia, and known to exist elsewhere. A few chemical manufactures—drugs, glassware, etc.—had been started, but were as yet chiefly experimental. Wool and leather were extensively manufactured and had excellent prospects for further expansion. Such, briefly summarized, are the statements of Hamilton in 1791.

Nevertheless, American manufacturing industries expanded notably during the thirty years now under review, though the expansion was not immediate nor was it steady. It received its first great impetus from the shutting off of British goods more or less completely, at the time of the Embargo in 1808; it received another though more specialized impetus in 1812 from the war demands for certain goods and supplies. Its maximum development, in general, seems to have been at the close of the war or just before it. Tax returns, for example, seem to indicate that in the closing months of 1814 and the early months of 1815 the American furnaces were turning out pig iron at a rate in excess of 80 thousand tons a year. In 1810, according to census returns, they had produced only a little over 50 thousand tons. Either figure was a vast improvement over the 10 to 20 thousand tons that were made in the depressed years from 1784 to 1789. As for technical matters, the iron industry had experienced few changes since the Revolution; forges had been started in the Lake Champlain region of New York, and forges, foundries and mills were growing up slowly in the western country, in and across the Alleghanies.

The coal trade, too, was growing up, though very slowly. The Virginia mines were still the most important producers in the country, but small and irregular shipments were beginning to reach the seaboard from the different anthracite fields of Pennsylvania. The soft coals of central and western Pennsylvania were coming into more extensive use, locally at least, and its coal supply was one of the points which travellers now suggested, when discussing the prospects of Pittsburgh. Not used as yet as furnace coal, coal was coming into use for mill and smith work. Steam engines grew in importance very rapidly, but still used wood as fuel almost

exclusively; the engines were in use, before the end of the period, in steamboats, corn and flour mills, and in a few other industries.

Wages and Living Costs.

For the thirty-year period here under consideration, it is practically impossible to make use of "index numbers" or "price averages," no matter how carefully these may have been constructed. The reasons are not far to seek. First, the American population was widely scattered and communication was difficult and expensive; there are on these accounts far wider variations in costs, as between one locality and another, than we are accustomed to in recent years. Second, the events of this troubled thirty years bore very unequally upon different trades and industries; some products were helped by the war in Europe, but fell off sharply when America entered it; other products—and particularly manufactures—gained from our own entrance into the conflict, and fell off only when the war ended.

In a broad way we may say that in 1789 the world was just recovering from a very serious and widespread depression. A few years of this peaceful recovery, and it was plunged (1792) into the long series of Anglo-French wars which lasted with only two minor breaks to 1815. These wars at first helped our foreign trade in food products, naval stores, etc. Later (1807 et seq.) came interruptions of this trade, which lessened the amount we could sell abroad, but gave exceptional prices for such cargoes as could get through to a market. All this time our infant manufacturing industries were struggling along with little share in the war-prosperity. But with our entrance into the war, (1812) foreign trade fell to zero, and prices for such products fell except in so far as they were in demand for the American army. Manufactures, on the contrary, enjoyed their first great war-boom, and their first real growth since Independence.

With peace in 1815, heavy English shipments of manufactured goods reached the American markets, and by the end of 1816 prices had been driven down, in spite of universal currency expansion. For some three years thereafter we experienced acute commercial crisis; and then for another three years, until around 1823, there was prostration though the acute period had passed. It is in the period 1815 to 1816 that we have therefore to look for the high prices of the period, so far as America is concerned, and to the period 1816 to 1822 that we look for the low points in both wages and prices. But both these generalizations are subject to the caution already suggested—that different areas and different commodities had fared very differently, both in the war-boom and in the post-war depression. On this account I have tried to put together here the details of actual costs and wages, at different times and places, with the idea that they will give a better idea of the real living conditions than would a merely statistical study of average price and wage levels.

Two of the very earliest of our canals happen to furnish interesting data on wages and living costs. On the Middlesex Canal in Massachusetts, begun in 1790, wages were still very low, ranging for common labor* from eight to ten dollars per month, plus subsistence of course. In the course of the

*Pub. Doc. relating to the N. Y. Canals, N. Y., 1821, pp. 204, 230.

years immediately following, prices and wages rose, but very slowly as regard both, at points far from active trade centres. Local demand was in such cases the important factor.

In the period 1796 to 1799, for example, the canal work along the Mohawk and Wood Creek route was being prosecuted with some vigor. In going over the original accounts of the company for this period, which happen to be in my own possession, I find wages ranging from 71 to 88 cents a day, equivalent to \$18 to \$22 per month. Boys received from 8 to 12 dollars a month. Carpenters are quoted several times at \$30 per month; a lockkeeper at \$33, and a section boss received as much as \$45 per month. To all these wages should be added subsistence, including chiefly flour, pork, "cooking money" and a generous supply of liquor. The ration must have cost around 15 cents a day, which in effect added \$4.50 per month to the wages quoted.

For comparison with these wages, we may turn to commodity prices. The same books which yielded the preceding wage data also gave a large number of prices. Flour, a commodity heavily dealt in for the canal, ranging from \$6.12 to \$8.50 per barrel during the two and a half years covered; its ordinary price seems to have been around \$7.50. Pork ranged from \$21.25 up to \$25.50 per barrel; its normal seems to have been around \$22.50. Very rare quotations on raw grains appear; such for example as wheat at \$1.00, rye at 81 cents, and corn at 62½ cents per bushel. Spirits ranged from \$1.07 to \$1.87 per gallon.

The construction commodities were rare and high priced. Lime and brick were made by contract; lumber was sawed by contract; iron was bought at prices around \$180 per ton; and steel appears very rarely and very sparingly—such items as 7 pounds of blister steel at 15 cents a pound, and fourteen pounds at 18 cents a pound show how far we have travelled in the way of cheapening steel since then.

The following prices current at New York City in 1802 have been selected from among a very large number*, with the idea of concentrating attention on such commodities as enter largely into domestic or trade use. A number of food products are first listed, after which other commodities appear.

Wheat, North River, per bushel.....	\$1.18	to	1.25
Corn, Northern.....	0.56	to	0.62
Oats.....	0.44	to	0.50
Flour, superfine, per bbl.....	6.25	...	
Beef, prime, per bbl.....	11.50	...	
Pork, prime, per bbl.....	18.00	...	
Bacon, per lb.....	0.08	...	
Lard, per lb.....	0.10	to	0.11
Hams, per lb.....	0.09	to	0.11
Butter, per lb.....	0.10	to	0.12
Coffee, West Indies, per lb.....	0.20	to	0.22
Salt, Turks Island, per bushel.....	0.75	...	
Tea, Hudson, per lb.....	1.00	to	1.09
Tea, Souchong.....	0.62	...	
Sugar, Havana, white, per lb.....	0.15	to	0.15½
Brandy, French, per gallon.....	1.37	...	
Tobacco, Maryland, per lb.....	0.06½	to	0.07
Furs, otter, per skin.....	5.00	to	5.50
Furs, mink, per skin.....	0.15	to	0.66
Furs, bear.....	2.00	to	6.00
Coal, Virginia, per ton.....	8.50	to	9.00
Coal, English, per ton.....	10.00	to	12.50
Bar Iron, American, per ton.....	105.00	to	110.00
Sheet iron, foreign, per ton.....	210.00	to	215.00
Steel, German, per lb.....	0.10	to	0.11
Block tin, per lb.....	0.25	...	
Copper, per lb.....	0.30	to	0.40

Writing of the Carlisle region of Pennsylvania† in the years immediately preceding the War of 1812, Cooper discusses certain items in living costs;

On current prices, of flour at \$6 per barrel (196 pounds); wheat at \$1.25 per bushel; meat at six cents a pound; and whiskey at 60 cents per gallon by the quarter-cask, it is assumed that a laboring man properly fed will consume per day 1½ pounds bread, 1 pound meat, and half a pint of whiskey. This ration will amount, with a small allowance* for vegetables and fuel, to \$55 per annum. "The dress of a laboring man cannot be estimated annually at less than \$25 in this part of the country; he must have a hat, a couple of

cravats, a couple of shirts, a couple pairs of stockings, two pair of shoes, a coat, jacket and pantaloons, and two pocket handkerchiefs per annum. He must have a habitation which will cost him not less than five dollars a year." At the same period Cooper states the actual wages at a Pennsylvania ironworks as being:

Carters, banksmen and ore diggers.....	61½ cents a day
Fillers	76 " "
Ore pounders.....	69 " "
Blacksmith	92 " "

In the year preceding the outbreak of our second war with England, prices current at Baltimore in September 1811 were as follows* for the more usual household and related commodities:

Flour was selling at eight dollars a barrel and bacon at ten cents a pound; butter from 15 to 18 cents, and coffee 16 cents a pound; cheese at 10 to 11 cents, brown sugar at 10½ to 13½ cents, loaf sugar at 19 to 20 cents a pound; and whisky at 46 cents a gallon.

The main crops and other domestic supplies were wheat at \$1.45 to \$1.50 per bushel, corn at 75 to 80 cents, rye at the same; tar and pitch were at \$3.25 to \$3.50 per barrel, spirits of turpentine at 40 cents per gallon, upland cotton at 10 to 12 cents, Virginia tobacco at 5 to 6 cents per pound and Kentucky at 4 to 5 cents; merino wool at \$1.50 to \$2.00 per pound, cross-bred wools at 75 cents to \$1.00; and common wool at 37 cents. American-made shot sold at 12½ cents a pound.

It will be seen that though these prices were, in the main, higher than those previously quoted, they do not yet show the abnormal war-rise characteristic of most English commodity prices at the same time.

At the peak of high prices in America, which for most regions and industries did not occur during the war but immediately after it, the wage and commodity scales were both notably increased above anything so far noted. Stratford Canning, then ambassador to the United States, notes† that in 1816 the ordinary farm laborer got \$16 per month plus board in the Hagerstown district of Maryland; while the mechanic got two dollars a day, without board. Flour sold at \$10.50 per barrel, and fresh meat at 8 cents a pound.

The post-war depression commenced promptly enough in certain parts of the country and in certain industries, and it spread more or less slowly into all regions and all trades. In September, 1817, a small canal was privately built at Rochester, New York, to supply power for mills and factories. On this job the common labor was secured at 62½ cents a day, plus subsistence.‡ This latter was charged at \$2.00 per week, "the common price for boarding." The gross labor cost was therefore a trifle under one dollar per day.

The Post-War Depression.

From the summer of 1813 onward it had been obvious that the fortunes of Napoleon were on the wane, and that peace was apt to come in the very near future. With the ending of both the European and the American wars in 1815 this prospect was turned into reality, and the manufacturers, farmers, and tradesmen of both England and America prepared, as usual, to reap a golden harvest. It seemed clear to them all that Europe had been under-fed and under-clothed for a full generation; it seemed clear to the British, in addition, that America must be in a similar plight. The obvious thing was to satisfy these demands, of course at some slight personal and national profit. It is not necessary to discuss the situation in detail; every reader who recalls the American hopes of 1919 can imagine the British and American hopes of 1815.

Both nations pushed exports in a frenzy of optimism. The British sent out manufactured goods; the Americans shipped tobacco and cotton, flour and other foodstuffs. Long before the end of a year it was realized that there had been serious miscalculations, and that the expected ready markets for all

*New York Price-Current, for May 29, 1802.

†Cooper, T. C. Emporium of Arts and Sciences, Vol. 3, new series, pp. 278-281.

‡Pub. Doc. relative to N. Y. Canals, N. Y., 1821, p. 218.

§Life of Rt. Hon. Stratford Canning, Vol. II, p. 334. London, 1888.

these things did not really exist. The British had overlooked the fact that, after twenty years of blockade, France and Germany and America had largely increased their own manufacturing plants, so as to at least be able to supply their home necessities. Americans had overlooked the fact that a shortage of food or tobacco is not cumulative; but is always essentially a matter of the current year's consumption. Everyone had agreed in overlooking the still more important fact that twenty-five years of war and destruction had to be paid for somehow, and that for the moment all the world was miserably poor.

Beginning in 1815 in some trades and commodities, in 1816 in others, world markets crumbled and broke under the weight of unsalable goods. There had been a very typical attempt at a post-war boom; there was in reality a very typical post-war crisis, followed by a long depression. The acute phase of the crisis had ended by 1819; the depression period is discussed in next week's installment.

(To be continued)

Satsuma Orange Orchards Enrich Louisiana's Cut-Over Pine Lands.

By FELIX BACHEMIN, Agricultural Agent, New Orleans and Great Northern Railroad Co., New Orleans.

But a few years ago, it was realized that the section of Southeast Louisiana's long leaf pine hills lying in St. Tammany and Washington parishes was being rapidly depleted of its valuable virgin forests. Steps looking toward replacing this source of wealth with another were taken, the object in view being to supplement the lumber industry with another more permanent and productive of better rural conditions—comfortable homes, good roads, graded schools and increased wealth.

About that time, the territory along the Gulf Coast, extending from New Orleans, La., to Pensacola, Fla., and fifty to sixty miles inland, became known as the home of the Satsuma orange in this country. St. Tammany and Washington parishes, lying as they do, just beyond Lake Pontchartrain from New Orleans, are located within this belt.

The first Satsuma orange tree was brought to Florida about fifty years ago, marking the beginning of a new industry. The first commercial grove in the United States was planted near Pascagoula, Miss., in 1895. The first planted in St. Tammany parish was near Waldheim, La., seven miles northeast of Covington, in 1897, and these trees at Waldheim have borne annually with increasing yield each year.

Satsuma trees grow on many kinds of soil, but on well drained hammock, or first-class pine lands, they are usually more free from disease and produce a better quality of fruit. The soil best adapted to the growth and profitable production of Satsumas is a fine, sandy loam with a clay subsoil, well drained and of good, natural fertility. The native growth of the land is an indication of its value for these oranges—the hammock lands should show a dense growth of hardwood, and the pine lands a large number of pine trees per acre. With this kind of soil, classed as "Orangeburg Loam," found largely throughout St. Tammany and Washington Parishes, the lands are selected in accordance with original growth, determined by stumppage found on the land.

The Satsuma is a medium size orange, slightly flattened at the blossom and stem ends, with a thin rind and flesh of a rich golden color. It peels very easily, the skin separating without breaking the pulp, the segments almost falling apart, due to which the term "Kid Glove" orange is applied to the Satsuma. It is of high class, with exactly the right combination of acidity and sweetness, having very little fiber, and is generally seedless.

The Satsuma is produced by budding dormant buds on the Citrus Trifoliata, the hardiest of all citrus plants, a native

orange of this section which is found in a wild state, and will withstand a temperature of 5 degrees above zero (Fahrenheit) while our lowest temperature rarely falls below 33 degrees. The Citrus Trifoliata has been known in China and Japan for hundreds of years, and the Japanese introduced budding Satsumas on this stock.

Throughout St. Tammany and the southern part of Washington Parishes, young orchards are found on the more elevated rolling or sloping lands, from which, within three or four years, carloads of Satsumas will be moved from the latter part of October until the middle of December each year to the markets of the country.

After a thorough investigation of the Satsuma Belt of this country and a careful study of soil types, St. Tammany and Washington Parishes, being in the same latitude as Mobile, Ala., even a little south of that locality, are found to be the same, as to their soil and climatic conditions, as the section where the Satsuma orange industry had its birth in America.

Raw lands for setting to Satsuma orchards in some parts of Florida, Alabama, Mississippi and Texas, cost from \$100 to \$500 per acre, while the type of land adapted to the growing of Satsumas in St. Tammany and Washington Parishes can be purchased at prices ranging from \$15.00 to \$50.00 per acre.

The heaviest stump lands may be cleared and prepared for planting for approximately \$25 per acre. The trees cost from 70c to \$1.50 each, according to variety, size of tree and source of bud-wood (the bearing record of the parent trees). Based on \$1 per tree, the trees for one acre grove will cost \$70. This added to initial cost of land and its preparation for planting young trees will average from \$110 to \$145 per acre, which includes entire cost, except that of actually setting out the young trees. These figures compared with values in other sections demonstrate the economical figure for which an orchard can be set out on the lands of St. Tammany and Washington Parishes.

With the trees planted 25 feet apart, or 70 trees to the acre, and a yield of two boxes per tree, at seven years of age, and based on \$2 per box, net to the grower, a profit of \$280 per acre is realized. There are cases where a ten-year-old orchard yielded seven boxes per tree, which sold at \$2 per box F. O. B., the grower receiving about \$980 per acre. There is a possibility of even greater returns than this per acre of Satsuma oranges by careful selection of trees and cultivation.

The trees in this section are hardy, the groves are healthy and vigorous, and there are no serious insects or diseases with which to contend. Through organizations for mutual benefit the growers keep in close personal touch with each other, and sturdy proper cultivation, fertilization and spray methods. The growers at present sell their annual output locally, but with the large increase now being made in the number and size of orchards, the marketing will be handled by an organization, thus insuring highest prices.

Here in the world famed Ozone Belt of Louisiana, one of the healthiest spots in America, as well as one of natural scenic beauty, are nearly one thousand acres growing Satsuma oranges, and each year this acreage increases.

Here is an unlimited pure water supply and also the finest system of good roads in the Gulf Coast section.

Many beautiful home sites, along hard surfaced roads or national highways and along the many picturesque rivers and streams, and acres of Satsuma orange lands await the seeker of health, comfort and prosperity.

L. T. Arnett, City Clerk, Fairmont, W. Va., advises the MANUFACTURERS RECORD that \$150,000 in bonds has been voted for the improvement of the city's water supply.

EARLY PRODUCTION AND TRANSMISSION OF HYDRO-ELECTRIC ENERGY IN THE SOUTH.

A Brief History of the Part Played in This Development by a South Carolina Engineer.

By ANDREW C. TODD, Anderson, S. C.

The generating of electricity by water power has been of rapid growth but is as yet only in its infancy. Thirty years ago the total horse power produced by hydro-electric generators in the United States amounted to less than 16,000, while the present record is 10,000,000 horse power so produced. Until 1894 the electric power so generated was delivered through transformers immediately at the power plant and in that year was installed one of the first generating plants for hydroelectric energy at a long distance from the transformers, and place of delivery to the motors. Wm. C. Whitner, a young engineer of Anderson, S. C., was one of the first to put in practice this plan.

In 1890 Mr. Whitner organized a company and installed a steam driven generating plant in his home town, Anderson, and it was successfully operated for four years. The demand for lights and power outgrew the capacity of this steam plant and Mr. Whitner determined to put into execution a plan he had evolved of generating electricity by water power at a point distant from the place of delivery and transmitting high voltage over bare copper wires to a transforming station for delivery to the users.

He was not able to secure sufficient financial backing to put in a large plant because capital did not have sufficient faith in the untried theory. However, sufficient capital was secured to erect and install a generator of 150 horse power at High Shoals on Rocky river, about six miles from Anderson, and the demonstration conclusively proved the practicability of his contention. This small plant was one of the first to generate current and deliver it over bare wires to transformers at a long distance from the generating plant.

Two years later, in 1896, the company found local capital ready to back it in the establishment of a much larger plant and readily subscribed for one-fourth of the \$200,000 of bonds issued by the company for that purpose. With the capital thus secured the company proceeded to develop a magnificent power at Portman Shoals, on Seneca river, eleven miles from Anderson.

This was one of the largest hydro-electric plants then in operation, the 10,000 volt generators installed there being the first of that voltage built in the world for commercial purposes, and were regarded by leading authorities as quite an experiment. The dam at Portman has since been raised to increase the power developed and that plant has since been taken in as a unit in the great Southern Power Company, the first unit of which was designed by Mr. Whitner and built on the Catawba river near Rock Hill, S. C.

For the past twenty-one years Mr. Whitner has been consulting engineer for the Virginia Railway and Power Company and with all his achievement he looks back proudly to his work in Anderson and what he accomplished in the beginning of his career as an electrical engineer.

It is not visionary to predict that long before the coal beds are exhausted the world will see "white coal," or the water powers that have been going to waste for ages, furnishing the power for manufacturing and operating the railroads of the country. When the estimated 40,000,000 horse power in the United States, now running to waste and useful only as scenery is harnessed to electric generators the strikes in coal mines will have little terror for the public.

The city of Hendersonville, North Carolina, will vote December 11 on \$350,000 school bonds.

\$250,000 Property of 500 Acres Purchased in Florida as Southern Colony for Railroad Workers.

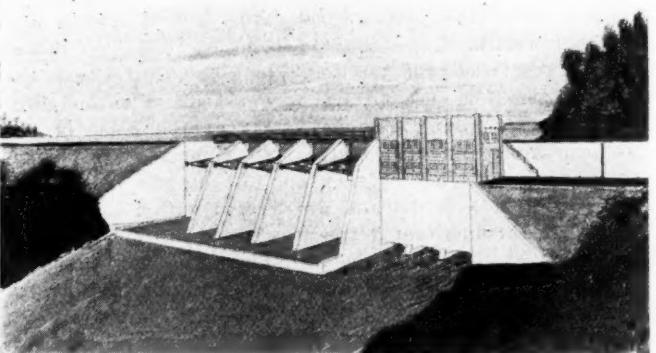
Ocala, Fla.—The purchase of 500 acres of land on Orange Lake, in Marion County, about eighteen miles from Ocala, for the establishment of a colony exclusively for railroad workers, has been announced. The purchase was made by Chesapeake & Ohio railroad men and is said to represent an investment of \$250,000.

The Railroad Men's Country Club, Inc., has been organized for promoting the enterprise which will involve the conversion of a mansion on the property into a clubhouse and for the establishment of hunting preserves, bathing beaches, fishing grounds and golf links. The clubhouse is estimated to cost \$100,000.

Officers of the new organization include J. S. Burdette, Huntington, W. Va., president; C. B. Scott, Ashland, Ky., vice president; E. J. Bryan, Jacksonville, Fla., vice president and general manager; J. M. Harrold, Russell, Ky., chairman of the board; J. E. Venters, Shelbiana, Ky., secretary-treasurer; C. L. Bess, Hinton, W. Va., and I. J. Crosby, St. Albans, W. Va., members of the board.

\$500,000 Hydro-Electric Development at Newton, Alabama.

The Houston Power Company have under construction at Newton, Ala., a hydro-electric development which when complete will represent an expenditure of \$508,000. The Southern Engineering Corp., of Albany, Ga., are the engineers for



DRAWING SHOWING CHARACTER OF WORK UNDER WAY. this project. A dam of concrete 50 feet high and 300 feet long will be built in addition to earth dams totaling 4200 feet, creating a pond area of 4100 acres, to develop 4800 h. p.

Two units have been purchased from James Leffel & Co., Springfield, Ohio, and the General Electric Co., Schenectady, N. Y.

Americus, Georgia.

"An Industrial Survey of Americus, Ga.," prepared by Cobb Milner, engineer, has been issued in booklet form by the Americus Chamber of Commerce, of which Lovelace Eve is president and H. P. Everett secretary. Some of the important facts emphasized are "Population 10,000. Three strong banks. One of the finest resort hotels in the South. Country club with 9-hole golf course. Three grammar schools. One high school. All streets and sidewalks paved. Gas and electricity in every part of the city. \$150,000 theater with seating capacity of 1000. Daily newspaper, afternoon." It is further pointed out that there are valuable opportunities for industry in and around Americus owing to its proximity to sources of raw materials, a potential supply of labor, abundant and cheap power, etc.

A Remarkable Charge to a Georgia Grand Jury.

JUDGE CRUM CALLS UPON A GRAND JURY TO RECOGNIZE THAT THE ONLY WAY TO BUSINESS AND NATIONAL SAFETY IS THROUGH FOLLOWING THE LAWS BASED UPON THE TEACHINGS OF THE BIBLE.

In his charge to a Grand Jury at Cordele, Ga., Judge D. A. R. Crum, in seeking to impress upon them the supreme importance of law observance drew almost wholly upon the Bible as his text and his charge. This address from a prominent Judge on the bench to a grand jury is so unique and remarkable that we give it complete.

Judge Crum's charge in full follows:

"The outcome of the war between the States left those of the Southern Confederacy impoverished.

"Sherman declared that 'war was hell,' his march through Georgia to the sea, left an unbelievable trail of ashes and desolation. The Federal commander, Hunter, sent a telegraphic message, which can be seen in the archives at Washington, saying, that he had so devastated the Shenandoah valley, that a crow, in flying over, would have to carry his rations.

"Reconstruction days fell upon Georgia and other Southern States. Negroes and carpet-baggers occupied seats in her Legislative bodies. A provincial Governor ruled with military force at the behest of Washington. We were treated as an alien people. A brave free people quailed before Federal bayonets, while fraudulent debts on posterity were contracted in the name of the State.

"Notwithstanding this, our people by toil, industry, frugality, economy, education, maintenance of the established rules of society, respect for law and obedience to God 'the giver of every good and perfect gift'—advanced and progressed through times of adversity and times of plenty, to the establishment of a prosperous and enlightened civilization.

"Suddenly a shot rang out in the little town of Sarajevo. An Austrian prince had been assassinated by a Serbian youth. Within a fortnight Europe was ablaze. Alliances between nations were broken and others formed. Treaties were rent asunder. Armies were marching, navies were concentrating, while American manufacturers and supply men held out their hands to reap the fruit of other peoples disaster.

"For two years we profiteered upon the miseries of the world, and then, entering the struggle we profited upon ourselves and the blood of our own boys.

"We piled up individual wealth with but little exertion, and then began a saturnalia of frolic, of extravagance, of buying and spending as though the pinnacle of money getting would never be reached. We spent our substance in riotous living. Men and women joy-rode and jazz-danced contrary to the dictates of modesty and to the displeasure of Him who rules on earth and super-rules above the skies.

"In the midst of this revelry we lost our financial liberty. A Federal Reserve Banking system had been brought forth in the name of stabilizing the currency and averting panics, but which, as the 'Trojan horse' contained within the means of our undoing. A financial dictator stalked therefrom proclaiming an ultimatum that we should be 'deflated'—a deflation that, according to an influential journal led to more suicides, griefs and deaths, destroyed more property and entailed more misery in this country, than all the disease of the camp and all the howitzers of the Huns.

"And then—a pest came to destroy our chief money

crop. Capital and labor could not compose their differences. Manufacturer and consumer were at each others throats. Producer and carrier each warred against the other. No adverse interests could get together on a 'live and let live' basis.

"The Golden Rule was ignored.

"Creed inveighed against creed.

"Organized bands sought to overthrow liberty and law.

"The seasons became disordered.

"Debt hampered the young and paralyzed the spirit of the aged. Men in discontent, broke their firesides to seek adventure in other climes.

"This, and more, has brought us to the point where stern necessity demands that we right about face and seek remedies that are radical and lasting.

"This country has entered into an ambitious and splendid five-year program for the work of man.

"The leaders in this movement have gone about this business with care, foresight and intelligent ability—as far as it goes. The people have embraced this opportunity for financial betterment with zest.

"The means for the projection of this movement have been and are being contributed, generally and liberally.

"Personally, I bespeak for it the most glorious success.

"But—'One thing thou lackest' yea—more than one thing, and it is of these I wish to speak today.

"From time immemorial it has been the custom, on occasions like the present, at the convening of a court of general jurisdiction where a 'grand inquest' is assembled, for the presiding judge, by virtue of the inherent powers of the court and long acquiesced license on the part of the Legislative Department to speak on almost any or all subjects which seem to be of public good.

"By virtue of this power or grace, which ever it be, in addition to the subjects of the law I am required to give you specially in charge, I want to be permitted to say something additional; not more directly to you individually or as an organized body than to all those who may chance to hear me, and those to whom these words may, in any manner, be repeated; and that is this.

"I want to say that, in my humble and prayerful opinion, the paramount need of we people today, and the thing absolutely necessary to restore us to a competency of this world's goods, contentment, happiness, 'Peace on earth' and a safe and final entrance upon the eternal golden shore, are, broadly speaking—fivefold.

"Work—according to God's plan.

"Honesty—according to God's plan.

"Economy—according to God's plan.

"Observance of law—according to God's plan.

"Service and obedience to God—according to God's plan.

"With your permission, and those who hear me, I will read without comment a few excerpts from the 'Book of Books'—the Bible; the greatest law book ever written; that book, greater filled with more wisdom and carrying more power than all the laws, of which it is the foundation; greater and of more ancient authority than The Code of Hammurabi, The Laws of Confucius, The Code of Justinian,

The Laws of Lycurgus, The Code of Napoleon or the Laws of the Phoenicians, and all the laws contained in all the leather and buckram bound books ever struck off the printing presses of a civilized world by the hand of man. That book which, 'in the dark hour of dissolution affords us that consolation and peace of mind which the world can neither give nor take away.'

Quotations From the Bible.

Six days shalt thou labor, and do all thy work.—Exodus 20:9.

In the sweat of thy face shalt thou eat bread.—Genesis 3:19.

He becometh poor that dealeth with a slack hand: but the hand of the diligent maketh rich.—Proverbs 10:4.

He that gathereth in summer is a wise son: but he that sleepeth in harvest is a son that causeth shame.—Proverbs 10:5.

Slothfulness casteth into a deep sleep: and an idle soul shall suffer hunger.—Proverbs 19:15.

And withal they learn to be idle, wandering about from house to house; and not only idle, but tattlers also and busy-bodies, speaking things which they ought not.—I Timothy 5:13.

The slothful will not plow by reason of the winter; therefore shall he beg in harvest, and have nothing.—Proverbs 20:4.

Honesty.

Ye shall do no unrighteousness in judgment, in measures of length, in weight, or in measure.—Leviticus 19:35.

Thou knowest the commandments, Do not commit adultery, Do not kill, Do not steal, Do not bear false witness, Defraud not, Honor thy father and mother.—Mark 10:19.

Herein do I exercise myself to have always a conscience void of offense toward God and toward men.—Acts 24:16.

He that walketh righteously, and speaketh uprightly; he that despiseth the gain of oppressions, that shaketh his hands from taking a bribe, that stoppeth his ears from hearing of blood, that shutteth his eyes from looking upon evil; he shall dwell on high; his place of defense shall be the munitions of rocks: bread shall be given him; his waters shall be sure.—Isaiah 33:15-16.

Economy.

The thoughts of the diligent tend only to plenteousness, but every one that is hasty hasteth only to want.—Proverbs 21:5.

A good man leaveth an inheritance to his children's children; and the wealth of the sinner is laid up for the righteous.—Proverbs 13:22.

There is precious treasure and oil in the dwelling of the wise; but a foolish man spendeth it up.—Proverbs 21:20.

She looketh well to the ways of her household, and eateath not the bread of idleness.—Proverbs 31:27.

And when they were filled, He saith unto his disciples, Gather up the fragments that remain, that nothing be lost.—John 6:12.

Observance of Law.

1—Let every soul be subject unto the higher powers. For there is no power but of God: The powers that be are ordained of God.

2—Whosoever therefore resisteth the power, resisteth the ordinance of God: and they that resisteth shall receive to themselves damnation.

3—For rulers are not a terror to good works, but to the evil. Wilt not thou then be afraid of the power? Do that which is good, and thou shalt have praise of the same.

4—For he is the minister of God to thee for good. But if thou do that which is evil, be afraid; for he beareth not the sword in vain: for he is the minister of God, a revenger to execute wrath upon him that doeth evil.

5—Wherefore ye must needs be subject, not only for wrath, but also for conscience sake.—Romans 13:1-5.

And Jesus answering said unto them, Render unto Caesar the things that are Caesar's, and to God the things that are God's. And they marvelled at him.—Mark 12:17.

Think not that I am come to destroy the law, or the prophets: I am come not to destroy, but to fulfill.—Matthew 5:17.

For this, Thou shalt not commit adultery, Thou shalt not

kill, Thou shalt not steal, Thou shalt not bear false witness, Thou shalt not covet; and if there be any other commandment, it is briefly comprehended in this saying, namely, Thou shalt love thy neighbor as thyself.—Romans 13:9.

(The Old Testament was written under a Theocracy. The moral laws and the religious laws were also the civil laws. Our civil laws based on laws of the Bible, and all passages or parts of laws of the Bible that teach obedience to God also teach obedience to the law of the land.)

Service to God.

No man can serve two masters: for either he will hate the one, and love the other; or else he will hold to the one, and despise the other. Ye cannot serve God and mammon.—Matthew 6:24.

And if it seem evil unto you to serve the Lord, choose you this day whom ye will serve; whether the gods which your fathers served that were on the other side of the flood, or the gods of the Amorites, in whose land ye dwell; but as for me and my house we will serve the Lord.—Joshua 24:15.

Thou shalt have no other gods before me. * * * For I the Lord thy God am a jealous God, visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me; And shewing mercy unto thousands of them that love me, and keep my commandments.—Exodus 20:3-5-6.

If ye walk in my statutes, and keep my commandments, and do them: Then I will give you rain in due season, and the land shall yield her increase, and the trees of the field shall yield their fruit; And your threshing shall reach unto the vintage, and the vintage shall reach unto the sowing time: and ye shall eat your bread unto the full, and dwell in your land safely.—Leviticus 26:3-5.

The steps of a good man are ordered by the Lord: and he delighteth in his way,

Though he fall, he shall not be utterly cast down: for the Lord upholdeth him with His hand.

I have been young, and now I am old; yet have I not seen the righteous forsaken, nor his seed begging bread.—Psalm 37:23-25.

"Do any doubt the authority of whom I speak or the power of Him from whom I read? If so, I would admonish them that I am talking of the God who sent not only one plague but ten; who turned the waters of Egypt to blood; sent the plagues of frogs; of lice; of flies; of murrain of beasts, of boils and blains; of hail; of locusts; of darkness and finally smote the first born of the land of Egypt.

"I am talking about the Babe of Bethlehem, a Life which began in a manger—became the central and heroic figure in the world's transcendent drama, ending apparently on the hill of Calvary, but in reality triumphed over death, rose from the grave, and is living and reigning at the right hand of God the Father Almighty in a realm of inconceivable glories.

"I am talking about the God who made the covenant with Abraham and with Isaac and with Jacob; yea, covenanted even to save Rahab—the harlot—for her service to His cause. I am talking of the Christ who raised the dead, caused the lame to leap for joy and healed the withered hand.

"I am talking about the God of seven years of plenty and seven years of famine; the God of the pillar of cloud by day and the pillar of fire by night; the God who divided the Red Sea and made the waters of Marah sweet; sent quail and manna down from Heaven, water from the rock for the children of Israel and gave them victory over the Amalekites.

"I am talking about the Star of Bethlehem which shone in the East and announced the birth of the Character which 'is without a parallel in human imagination' still shines serene, glorious, beautiful—not one ray lost from its glittering crown—shining on amid the endless spaces and interminable paths of eternity—shedding beams which come to the heart like a flood of sunshine, dispelling its gathering mists, shining through the gloom of the grave, and illuminating our way to the superb palaces of Heaven.

"I am talking about the God who rides the earthquake, lightning, storms; who sent ravens to feed his prophet; fire

that licked up the waters round about His altar and translated Elijah to Heaven in a chariot of fire.

"I am talking about the God of Paul—the great Apostle to the Gentiles—who exercised an influence upon the development of Christianity beyond estimate; who plead the sacred cause of the Master before King Agrippa, and who, standing in the midst of the men of Athens declared the unknown God.

"I am talking about the God of Shadrach, Meshach and Abednego; the God of Daniel in the lions den, and who, turned back the sun ten degrees in the dial of Ahas."

RUNNING 101 RANCH BY ELECTRICITY.

Showers, Baths and Electric Fans for Hogs—Electric Lights Make Poultry Start Work at 4.30 A. M.

Ponca City, Okla., November 16—[Special]—The Miller Bros., owners of the famous 101 Ranch near Ponca City, believe in doing it with electricity, and to such an extent that all the various departments are electrically equipped, and electricity is being put to every use possible.

The Millers have had their own power plant on the ranch for a number of years, and although it is still sufficient, they have taken advantage recently of an opportunity to use a high line from Ponca City south to Marland, Red Rock and other towns, and thus they have a reserve. The Millers' own power plant is equipped with a 30-horse power generator and a 100-horse power generator, the former run by a Diesel oil engine and the other by a steam engine. They have a switchboard for each of the generators and the high line.

The Millers are more fortunately situated than is generally the case, for they produce their own oil for the Diesel engine and they use their own natural gas to generate their own electricity. The gas is used under the boilers.

The ranch, which by the way is the largest now in the United States and also the greatest diversified farming and livestock development, has its own waterworks system, the water being obtained from two deep wells and forced over the ranch by motor driven pumps. The "White House," the official residence, is equipped with every modern electric device, including a complete lighting system. This is true also of the general store, dormitory for employees, mess house, stables, office headquarters and various other buildings.

The ranch dairy herd now consists of approximately two hundred cows, Holstein and Dutch Belt, and all are milked by electricity, which also furnishes the power that carries the feed for the cows to the front of all the stalls. Adjoining is the creamery and butter making plant, where electricity runs the cream separators, churning and other machinery. This is true also in the cider house nearby, where the cider mills and the different appliances for making jellies, preserves and butters, and canning them, are electrically equipped.

In the 30,000 bushel sweet potato drying house, electric fans are used to do the drying, keeping the air in circulation. The house is divided into three separate compartments by two long runways, down which teams and trucks may be driven and the potatoes unloaded into bins, of which there are twenty, each holding 1500 bushels. These bins are built after the fashion of corn-cribs so that the air may circulate freely. To each bin, or for each 1500 bushels of potatoes, there is a stove placed, or a total of twenty stoves, which are kept going constantly until the potatoes are entirely cured. In addition to each stove there is also a big electric fan in each bin and this keeps the hot air in circulation. The bins are separated by heavy curtains and as fast as a bin is filled, the curtain is dropped and the stove and fan started.

Electricity is used by the Millers in many ways in taking care of their extensive herd of purebred Duroc-Jersey hogs, of which they now have the largest in America. The head

of the herd is known as "The Great I Am" and for him a special home was built with electric lights, shower bath and electric fan, which he can operate for himself. In the bottom of a decline, which provides the bath tub, the boar steps on a board as he enters and this turns on his shower bath; when he gets through and emerges he has to step on the board and it shuts off the showers. In one corner of his room is another board and when he steps on it, the electric fan is turned on. In several small maternity houses for the sows provision is made for electrically heated pads which are used, when pigs are littered during cold weather, to keep the newborns warm.

In the packing plant, for practically all the steers on the ranch are slaughtered and sold direct to consumers, electricity is used to hoist the beeves, run the sausage making machinery and in fact for all other machinery in the plant, and in the tanning plant which is run in connection with the packing house, electric power runs the machinery. From the tannery the hides are taken to the harness making plant and here again electricity does all the work.

The Millers even use electricity to make their hens lay more eggs, and they have chickens by the thousands in addition to big droves of turkeys, guineas, geese, ducks and peafowl. All the houses are electrically lighted, and this makes it possible to lengthen the daylight hours for the layers. A clock turns on the electric lights at 4:30 a. m. and the hens, believing the sun is up, get down and go to work scratching for a living and the activity produces more eggs. At a certain hour, when the sun is really high enough in the heavens, the electric lights go off.

The Millers maintain a big blacksmith and repair shop, including automobile repairs, and here again electricity does all the work in driving the various machines. Among these are the big triphammer which sharpens the plow shares, and the machine which finishes the wood for doors, windows and other finished lumber. The big saws that cut the logs into lumber are also run by electric power.

And in addition to running everything else electrically, the Millers have a portable 25-horse power motor mounted on a truck. This is taken to various parts of the ranch to do any work that may be desired. It is operated at 2300 votes. The silos are filled with grain by this motor, and it is used also during the several harvesting seasons in many ways.

The Miller brothers are Joseph C., George L., and Zack T. and their ranch now comprises 110,000 acres, of which the Millers now own 40,000 acres, the remainder being under lease. It is located eight miles southwest of Ponca City. The designation "101" was the original cattle brand of their father, Col. George W. Miller, one of the early day cowmen of the Southwest.

Contracts for \$600,000 Methodist Hospital.

Memphis, Tenn.—A number of contracts have been awarded for the erection of the new Methodist Hospital here, which is estimated to cost complete about \$600,000. These include the following: General contract, Estes-Williams-Ragsdale Co., at \$230,824; J. W. Hull Plumbing & Heating Co., plumbing and sewerage work and furnishing kitchen equipment, \$45,880; Joseph Fowler Electric Co., wiring, \$9795, and the Chears Floor & Screen Co., screen doors, \$1693. All these firms are of Memphis. Contract for a high pressure steam and vacuum return system of heat was awarded to the Peters-Eichler Heating Co., of St. Louis, at \$31,237.

The building will be fireproof, four stories, 235 x 46 feet, with a one-story wing, 48 x 48 feet. It will be of reinforced concrete and dark brick, having concrete and terrazzo floors and a tar and gravel roof. Equipment will include 2 passenger elevators and an electric dumb waiter. Furnishings are estimated to cost about \$65,000. W. F. Shulz of Memphis, is the architect.

GLAD MR. McCORD SAID "DARN" AND NOT DAMN.

A Farmer's View of Some Banking Methods as Relates to Loans on Cotton vs. Loans on Iron.

The Farmers' Educational & Co-Operative Union of America Alabama Division.

Birmingham, Ala., October 27.

Editor Manufacturers Record:

Hon. Jos. A. McCord, president of the Federal Reserve Bank of Atlanta, thinks I have done him an injustice in my reference to him in a letter published in the RECORD of October 10. I stated that Mr. McCord said the Act referred to was not worth a damn, when as a matter of fact he says that his statement to me was "from the information he had received, it seemed to be the consensus of opinion the law was not worth a darn." Mr. McCord is scrupulously punctilious in the observance of officialdom ethics, and is a big-hearted, patriotic statesman with vision to see the needs, with a sincere desire to better agricultural conditions, but is restrained from doing that which is necessary by the customs and ethics of banks and officials.

Diogenes with a million candle power electric light could not find one honest Congressman around Washington, who would admit that the Intermediate Credit Act was what he had desired, or that the act as passed was worth anything so far as bettering the condition of the farmer.

As to the bankers, they have in the past given little or no consideration to the real need of the farmer for money when marketing his crops. I asked a banker a few days since to loan \$125 per bale on cotton, insured and stored in an up to date concrete warehouse. His reply was "Let the farmer sell his cotton and pay his debts," his bank "needed all the money it had to loan on iron and steel, now being stacked on the furnace yards," evidently not seeing any inconsistency in forcing the farmer to sell his products regardless of price, and helping the furnace man, who owed a thousand dollars where a farmer owed one. The banker did not have the vision to see that the money loaned to the farmer would return to the channels of trade, and possibly be deposited in the bank the same day by the merchant to whom the farmer owed money. The banker admitted that it was his belief that cotton would advance in price as there was not enough produced to supply the demand, while there was more iron manufactured than there was a demand for.

Two years ago the president of one of our largest railroad systems is reputed to have said, "The farmers should be forced to sell their cotton in order that business may go on as usual." The fact is the farmers of the country use more iron and steel than do all the railroads; and if the farmer cannot buy, there is no demand for iron and steel by either farmer or railroads, as the farmer supplies more than sixty per cent of all the tonnage the railroads haul. Why not make the furnace man sell his iron and pay his debts? The cotton is infinitely better collateral than is the iron, for there is a shortage of cotton conceded by every well-informed man, with a demand that will inevitably force the price higher.

The truth is that all interests have heretofore been so accustomed to exploiting the farmer that they—the interests—fail to see that the goose that lays the golden egg is being starved to death.

G. T. MCELDERRY, President.

A combined laboratory and field investigation of the use of mud fluid and cement in oil and gas drilling operations is being made at the Petroleum Experiment Station of the Bureau of Mines at Bartlesville, Okla.

Some Facts and Some Comparisons About Texas—The Wonder State for Size.

Mr. H. M. Madison, Farm and Immigration Agent, of the San Antonio and Arkansas Pass Railroad, in a letter to the MANUFACTURERS RECORD writes:

"The northern boundary of Texas is nearly 200 miles south of San Francisco; the southern boundary of California is in the same latitude as Dallas and Fort Worth, but Texas extends southward over five hundred miles further.

"It is further from Texline, Texas, to Brownsville, Texas, than from Texline to Minneapolis; it is further from El Paso to Texarkana, than from Texarkana to either Cincinnati or Chicago.

"If Texas were moved northward until its southern extremity was at the meeting point of Kentucky and Missouri, it would cover Indiana, Illinois, two-thirds of the peninsula of Michigan, half of Lake Michigan, the southeast half of Minnesota, all but a little of the northwest corner of Iowa, nearly 20 per cent of the eastern part of Nebraska, touch Southeastern Dakota, and take in the eastern third of Missouri. The cities included in this territory would embrace Chicago, St. Louis, Milwaukee, St. Paul, Minneapolis, Des Moines, Sioux City and Omaha.

"If the western point of Texas were moved to San Francisco, the eastern side would extend well into Utah; the northern end would be well into Oregon and the southern point would be about Phoenix, Arizona.

"If the eastern edge of Texas were moved to New York City, the western end would extend beyond Chicago nearly to Rockford, the southern point would be near Raleigh, N. C., and the northern boundary over fifty miles north and east of Sault Ste. Marie. The cities embraced in this territory would include New York, Brooklyn, Philadelphia, Baltimore, Pittsburgh, Buffalo, Washington, Detroit, Toronto, Chicago, Milwaukee, Indianapolis and Cleveland.

"Texas is the only state in the Union that ever produced a billion dollar crop. It produces nearly 30 per cent of the cotton of the United States, leads in honey, pecans and so many other things that it is difficult to mention them all. It has the highest peak in the United States east of the Rocky Mountains. All the rivers run southeastwardly. There is more rain in east Texas than in any state north of the Ohio and Missouri Rivers. Texas has the biggest dairy in the world. It has so much lignite that the geologists have had to use about ten ciphers after the figure three, to tell the number of tons there are here. Its oil runs a big percent of the factories and automobiles of the country. Its possibilities are hardly touched upon.

"But I am forgetting. When I start to talk about Texas there are so many big things to say that it is difficult to find a stopping place. However, outside of the facts in the case, I am taking the liberty of handing you a sketch that may tickle the fancy when business cares are over and a few friends are chatting amidst an informal whiffing of Havanas."

Here is the statement enclosed by Mr. Madison:

"Texas occupies all the continent of North America except the small part set aside for the United States, Mexico and Canada. Texas owns all the north of the Rio Grande, the dustiest river in the world; also the only one, with the possible exception of the Trinity, which is navigable for mud cats and pedestrians.

"Texas is bounded on the north by 25 or 30 states, on the east by all the oceans in the world except the Pacific, and on the south by the Gulf of South America, and on the west by the Pacific Ocean, the Milky Way and by the sidereal universe.

"If Texas were chopped off loose from the rest of the United States and the Panhandle it would float out into the ocean, as it rests upon a vast subterranean sea of fresh water.

"Texas is so big that the people in Brownsville call the

Dallas people Yankees, and the citizens of El Paso sneer at the citizens of Texarkana, Texas, as being snobs from the effete east.

"It is 150 miles further from El Paso, Texas, to Texarkana, Texas, than it is from Chicago to New York; Fort Worth is nearer St. Paul, Minn., than it is to Brownsville, Texas.

"The chief occupation of the people of Texas is trying to keep from making all the money in the world: The chief pursuit of the people of Texas was formerly Mexicans, but now it is land buyers, steers and Texas crop records.

"The United States with Texas off would look like a three-legged Boston terrier.

"Texans are so proud of Texas that they cannot sleep at night. If a Texan's head should be opened the map of Texas would be found photographed on his brain. This is also true of his heart. Unless your front gate is eighteen miles from your front door you do not belong to society as constituted in Texas. One Texan's gate is one hundred and fifty miles from his front door and he is thinking of moving his house back so that he will not be annoyed by passing automobiles and peddlers.

"Other Texas landlords have whole mountain ranges and rivers on their ranches. One Texan has forty miles of navigable rivers on his farm. If the proportion of cultivated land in Texas were the same as in Illinois, the value of Texas crops would equal that of forty-seven other states.

"Texas has enough land to supply every man, woman and child in the world with a tract of five feet by twenty and have enough left over for the armies of the world to march around the border five abreast.

"If the alfalfa grown in Texas were baled and built into a stairway it would reach the pearly gates.

"If all the hogs in Texas were one big hog, he would be able to dig up the Panama Canal in three roots.

"If all the Texas steers were one big steer, he would stand with his front feet in the Gulf of Mexico, one hind foot in Hudson Bay and the other in the Arctic Ocean, and with his tail brush the mist from the Aurora Borealis. Some State."

Plans for Development of 450 Acres for Baptist Encampment Near Pineville, Ky.

In connection with the proposed development near Pineville, Ky., of the Baptist encampment which will be undertaken by the Clear Creek Mountain Springs Corporation, Rev. L. C. Kelly, of Pineville, who is interested in the enterprise, wires the MANUFACTURERS RECORD:

"Clear Creek Mountain Springs Corporation sell ninety-nine year leases for cottage and camp sites, proceeds to be used in building roads, lakes, hotel, auditorium, athletic field, golf course and other utilities; residences to be constructed by individuals who purchase leases; public buildings by Board of Control; project to ultimately provide for one thousand cottage sites; has not reached construction stage; water, light and sewerage to be installed as needed.

The committee in charge of the development is composed of Senator Joseph Bosworth, Judge Edward Evans, Judge J. R. Sampson, Rev. S. P. Marti and J. W. Allison, all of Middlesboro, Ky.; Dr. Edward Wilson, Rev. L. C. Kelly, R. R. Atkins and Ira J. Porter, all of Pineville.

Construction Begun on Chemical Plant.

Charleston, W. Va., November 16—[Special]—The Carrier Chemical Co., capitalized at \$150,000, has begun construction of its \$50,000 plant near Dunbar, W. Va. Officers of the company are: M. T. Davis, Jr., president; Arch Kreig, secretary; W. E. Wright, treasurer; C. F. Carrier, vice president and general manager.

It has purchased 7½ acres of land, and plans to have its plant ready for operation in six months. At the outset it will manufacture milk of magnesia only, the raw material for such a product being derived from the residual bittern of the salt brines of the Kanawha valley and in addition it requires caustic soda produced in the Charleston industrial district.

Southern Education Convention Next June.

On Wednesday of last week, November 14, plans were perfected at a meeting in Greenville, S. C., for the Southern Education Convention there from June 9 to June 14 next. The sessions are to be held in Textile Hall and it is proposed to invite everyone interested in education, including executives of cotton mills, bankers, general business and professional men and parents of school children to join with others engaged in educational work in discussions of present needs. Simultaneously there will be held an exhibition of equipment and materials used in erecting and furnishing school and college buildings. Members of the legislatures of North Carolina, South Carolina and Georgia will also be invited to attend the convention which will be unique in that it will be a great gathering to deal with means for improving the work of city schools, country schools and also colleges, and in the discussions men and women outside of the immediate field of educational activity are expected to take an equal part with those within. The speakers will include men of national repute.

As a very large attendance is anticipated ample housing arrangements will be provided. Especial effort will be made to secure a large attendance of members of school boards so that they may observe and consider the improved methods of instruction and also the modern school equipment which is to be displayed.

At the meeting last week the assemblage was called to order by Dr. J. L. Mann, superintendent of City Schools, of Greenville, who was chairman of the executive committee, and the address of welcome was delivered by Dr. W. J. McGlothlin, president of Furman University, another member thereof. W. G. Sirrine, president of the Textile Hall Corporation, introduced everyone present by name and stated the object of the meeting. He said that he had requested the attendance of presidents of leading colleges, state superintendents of education, superintendents of city and county schools to aid in formulating plans. It is proposed to devote one third of the time of the convention next June to city schools, one third to county schools and one third to colleges. The plan will be financed by the Textile Hall Corporation, which will be reimbursed by the sale of space for exhibiting school and college construction materials and equipment. All of the exhibitors at the National Educational Association expositions will be asked to take space.

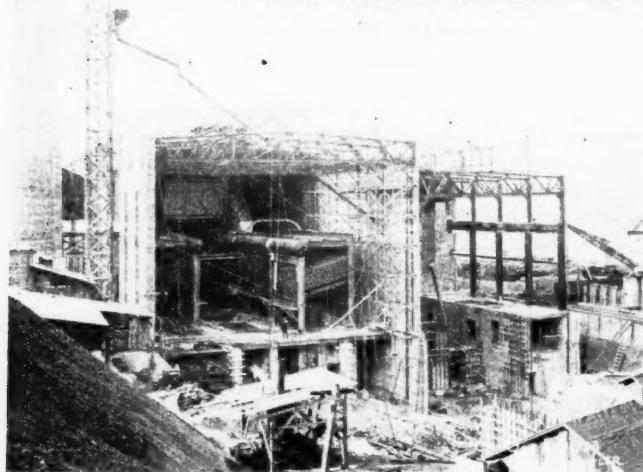
Other speakers discussing the plans for the convention and making suggestions therefor included J. H. Hope, State School Superintendent of South Carolina; A. T. Allen, State Superintendent of Public Instruction of North Carolina; J. E. Mathis, Superintendent of City Schools, Americus, Ga.; Frederick Archer, Superintendent of City Schools, Greensboro, N. C.; G. G. Bond, Superintendent of City Schools, Athens, Ga.; W. H. Hand, Superintendent of City Schools, Columbia, S. C.; Dr. H. N. Snyder, President of Wofford College, Spartanburg, S. C.; Dr. S. C. Byrd, President of Chicora College, Columbia, S. C.; Miss Katherine Dozier, Director of Education of the Pacolet Manufacturing Co.; Dr. R. P. Pell, President of Converse College, Spartanburg, S. C.; Frederick Evans, Superintendent of City Schools, Spartanburg; B. L. Parkinson, Secretary State Teachers Association, and E. C. McCants, Superintendents of City Schools, Anderson, S. C.

Purchase Miller Union Stockyards at Atlanta.

Atlanta, Ga.—The purchase of the Miller Union Stockyards here by W. H. White, Jr., president of the White Provision Co. of Chicago, and Asa Candler, Jr., of this city, has been announced. At the time of its purchase, the company was capitalized at \$250,000 in common stock and \$150,000 in preferred. Details relative to a reorganization of the enterprise have not been determined.

Third Addition to Glen Lyn Steam Plant—Increasing Capacity to 60,000 Kilowatts—Early Construction of Fourth Extension.

Relative to the construction of extensions to the steam plant at Glen Lyn, W. Va., of the Appalachian Power Co., of New York, Viele, Blackwell & Buck, also of New York, who are the engineers on the project, advise the MANUFACTURERS RECORD that they are now engaged in the design and construction of the third extension to the plant which will



CONSTRUCTION PROGRESS ON THIRD UNIT.

increase its capacity to 60,000 kilowatts. They expect soon to begin the design and construction of a fourth extension which will complete the plant and give it a capacity of 80,000 kilowatts.

The Glen Lyn plant supplies a large part of the power required in southwestern Virginia and southern West Virginia, including the mines of the Pocahontas coal fields. Its distribution system at present includes about 700 miles of transmission line and is rapidly developing. Mr. H. W. Buck, of the engineering firm states his belief that this plant is the largest steam power plant in the Southern states with the exception of the one at Muscle Shoals. Its units are made up of 1250 horse power boilers supplied by the Babcock & Wilcox Co., of New York, and 20,000 K. W. turbo-generator units made by the General Electric Co., of Schenectady, N. Y.

New School, \$500,000 Hotel, and Improved Water System at Hickory, N. C.

Hickory, N. C., November 16—[Special]—This city is planning the construction of a new school on an 8-acre lot which has been donated to the city and which is valued at \$50,000. The school will be located at 13th Avenue and 10th Street. Bids are being asked on a \$250,000 bond issue.

A gravity water system has also been authorized and bids are being advertised for on an issue of \$90,000 in bonds.

Demands are being made for an extension of this system to nearby towns and a mass meeting of Hickory citizens has been called to learn the sentiment, as the cost will probably run from \$250,000 to \$300,000 and the City Council hesitates to authorize such an expense unless it has a strong sentiment back of it from the citizens of Hickory.

A new hotel to cost \$500,000 is being planned and is to be financed by popular subscription. It will be located on a site on 10th street.

The Hickory Paper Box Co. has purchased a site along the railroad and expects to build a larger plant. This concern started in a very modest way in 1920 and has doubled the capacity of its plant. Its products are sold to the candy and hosiery manufacturers in this vicinity.

Bids in March for 600-Room Hotel Addition at New Orleans.

New Orleans, La., November 17—[Special]—Plans have been completed for the erection of a 600-room addition to the Roosevelt Hotel here, formerly Hotel Grunewald, and construction bids are expected to be received in March. The architects are Toledano, Wogan & Bernard and Favrot & Livaudais, associated; their plans are now ready for acceptance by the executive committee.

In connection with the engineering force of the architects, the Guaranty Development Co., Inc., which is the holding company, employs Rudolph Herpich, consulting engineer, and Harry L. Moses, consulting decorator.

North Carolina Sells \$10,649,000 Bonds.

B. R. Lacey, state treasurer of North Carolina, wires the MANUFACTURERS RECORD of the sale to the First National Bank, New York, of \$10,649,000 of 4½ and 4¾ per cent bonds. Both the bonds and interest therefrom are exempt from state, county and municipal taxation.



STEAM POWER PLANT OF APPALACHIAN POWER COMPANY AT GLEN LYN, W. VA. THIRD UNIT UNDER CONSTRUCTION.

Construction of Office Buildings, Stores and Residences Feature Activity in North Wilkesboro.

North Wilkesboro, N. C., Nov. 17.—[Special]—North Wilkesboro is to rebuild immediately the electric light plant destroyed by fire last week. It is estimated the cost will be \$80,000. Eugene Trivette is Mayor.

Several business buildings are under construction. The First National Bank is building a \$100,000 modern bank and office building, the work being done on the day labor basis by Allen & Foster, contractors.

The Forest Furniture Co., recently completed a \$25,000 addition to its plant.

The Phillips Building, a store and office structure, two stores, brick, is also under construction.

During the past year one hundred residences aggregating \$250,000 to \$300,000 have been erected at North Wilkesboro. Several additions have been made to industries in this section.

Seven miles of street paving is now complete giving this town of 3000 population good streets leading in all directions and connecting with the good roads radiating through the county. Wilkes county has spent about \$1,000,000 on road improvements, bridges, etc., with an additional \$500,000 spent by the State on modern highway construction. All of this work has been done during the past five or six years.

In addition to the superb climate to be found throughout this region, diversification of crops and manufactures assures a solid foundation for development. A great variety of field crops, fruits and vegetables is produced. The raising of cattle and sheep, and increasing poultry business further adds to the diversified list of products.

The timber resources of this section, hundreds of thousands of acres being virgin forests, offer raw material for furniture and woodworking plants.

Not far from North Wilkesboro are the famous iron Springs and Lithia Springs where several summer cottages have been built, and which has possibilities for the development of a resort center.

In the celebrated Thermal Belt surrounding this region, apples, peaches, and small fruits promise to become one of the great crops. Undeveloped orchard lands are said to be plentiful and cheap.

H. C. Landon, secretary of the Wilkes Commercial Club, North Wilkesboro, states that North Wilkesboro and Wilkesboro have nearby 100,000 acres of virgin timber land, and 150,000 acres of second growth timber. This timber offers raw material for pulp mills, furniture factories, match factories, handle factories, woodworking factories, ready-cut house factories, etc.

Much undeveloped water power is found in this section. Discussing the power resources and possibilities of development, Mr. Landon said:

"In 1920 the Wilkes Commercial Club interested the county commissioners to the extent of paying one half the cost of a water power survey of Wilkes county and this survey was published in 1922.

"There are small power sites available for development for knitting mills, underwear and overall factories, and they are located at points where labor can be secured.

"The total of large and small powers ranging from 100 to 500 horse power in Wilkes county is 45,000 horse power.

"One power site within one mile of North Wilkesboro will develop 3200 horse power. The Commercial Club has a report of Lockwood, Greene & Co. of Boston, that includes the development of powers on the New River in conjunction with those on the Reddies river, which flows into the Yadkin at North Wilkesboro, in which it is estimated that a development of 331,000 horse power is possible."

THE SOUTH'S INTEREST IN A PROTECTIVE TARIFF.

Fourth Annual Convention to Be Held in Chattanooga, December 7-8.

Washington, November 17.—[Special]—Announcement was made at the headquarters of the Southern Tariff Association in this city today that the Fourth Annual Convention of the Association will be held at Chattanooga, Tenn., December 7-8.

At that time according to the program, leaders in southern industry will assemble and pass judgment upon the workings of the present tariff measure as applied to Southern industries and the flexible provision of the Tariff Act will receive consideration. It was through the operation of this provision that the Tariff Commission favorably considered the application of the Bureau of Raw Materials to reduce the linseed oil rates which involve flaxseed and soya bean and affect the entire vegetable oil structure including peanut and cottonseed oil.

It was in protest against the docketing of vegetable oil for a hearing that a committee of Southern Governors and Commissioners of Agriculture appeared before President Harding last February.

A unique feature of the program will be a report of the "Cripples" including industries unable to function under the rates given in the present measure. Long staple cotton and hides are among the Southern agricultural products that went on the free list and graphite and mica are among the mineral products of the South that have laid dormant since the passage of the Act. An effort will be made by these industries to have the December session of the United States Congress reopen the Tariff Act and give these industries relief.

John H. Kirby, President of the Southern Tariff Association, will be the principal speaker and the report of eighteen state chairmen will be made to the convention.

A comprehensive plan of organizing the South into a compact body opposing tariff revision and demanding a stable tariff policy and taking the tariff out of politics are among the subjects which will be considered by the convention.

The tentative program is as follows:

December 7th, Morning Session, 10 A. M. Address by John H. Kirby, President, Southern Tariff Association; Report of State Presidents, Southern Tariff Association, from the following states: Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

Afternoon Session, 2 P. M. Report of organizations upon effect of present Tariff Act on their industry. Report of "Cripples" and industries unable to function under the present Tariff Act.

General Discussion:—Flexible provision of the Tariff Act as a permanent tariff policy of government.

December 8th, Morning session, 10 A. M.

Address of Chas. deB. Claiborne, of New Orleans President, American Bankers League and Vice-President of the Whitney-Central National Bank of New Orleans.

Discussion organization plans, state and local.

Defending of Southern schedules from attack before Tariff Commission.

Resolution committee report.

All producing organizations, Chambers of Commerce, Farm organizations, Civic organizations, Women's organizations, Bank Associations, Trade organizations, Press organizations, Fraternal societies, Governors, Commissioners of Agriculture, Commissioners of Labor, Commissioners of Mining, and Commissioners of Banking are invited to attend and urged to appoint twenty-five or more delegates to the Convention.

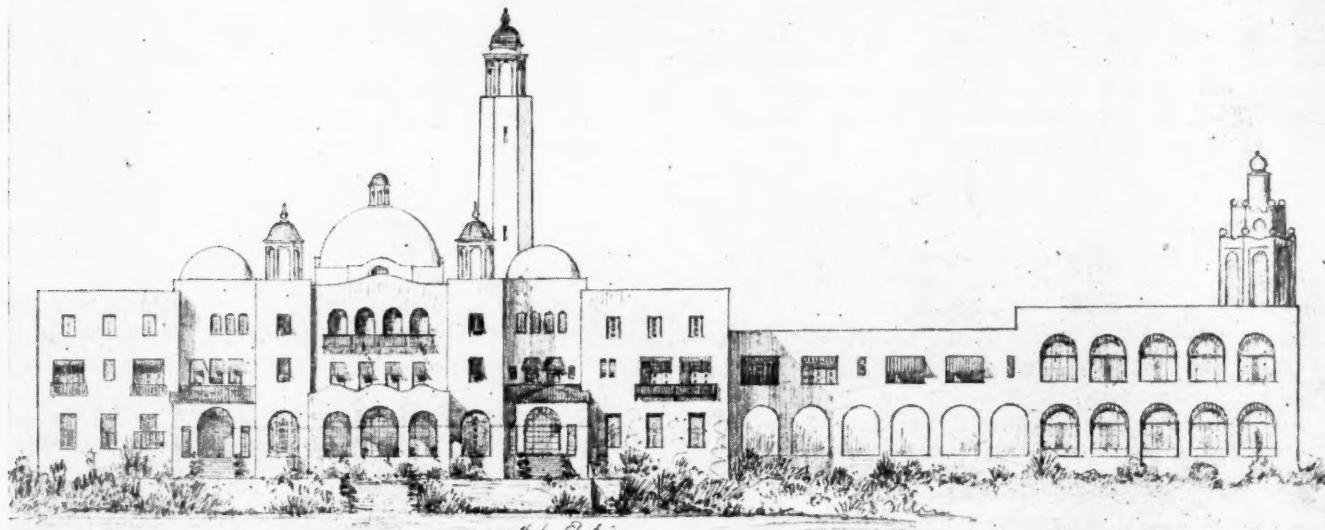
Hotel Coquina at Ormond Beach, Florida—New \$600,000 Structure to Replace Bretton Inn.

The new Hotel Coquina at Ormond Beach, Florida, which is being erected by James P. Vining at a cost of about \$600,000 to replace Bretton Inn, is nearing completion. The structure is of Moorish design, details of architecture having been carried out in the style of the primitive buildings of North Africa. It is fireproof, of hollow tile, stucco and brick. The walls carry straight up through three stories in the main building without any architectural break with the exception of the openings, many of which are provided with balconies, which are either in the line of the building or project out and are supported by brackets.

In the construction of the building, O. P. Woodcock & Co. of Jacksonville are the general contractors, while A. B. Moore & Co. of Daytona are sub-contractors for plumbing and heating. H. A. Thompson, also of Daytona, is the sub-contractor for the electrical work. Supplies are being furnished by the

following firms: Hull & Cowan, Jacksonville, building tile; Carolina Portland Cement Co., Charleston, S. C., Brick; Daytona Sheet Metal Works, roofing and sheet metal work; John Graham, Jacksonville, plastering; Kohler Co., Kohler, Wis., bathroom fixtures; Thomas Maddocks Sons Co., Trenton, N. J., vitreous ware; American Radiator Co., Chicago, radiators and boilers; P. F. Corbin Co., New Britain, Conn., locks and hardware; Trumbull Electric Manufacturing Co., Plainville, Conn., switches and cabinets; Square D Co., Detroit, Mich., safety switches; Sprague Electric Works, New York, conduits and cables; Duval Planing Mill Co., Jacksonville, mill work; Baltimore Electric Co., Baltimore, Md., general electric supplies; Sims Co., Erie, Pa., hot water boilers; Lloyd-Garrett Co., Philadelphia, lighting fixtures; Chapman Decorative Co. and John Wanamaker Co., also of Philadelphia, furniture.

Plans and specifications for the hotel were prepared by Magaziner, Eberhard & Harris of Philadelphia.



\$600,000 HOTEL FOR ORMOND BEACH, FLORIDA.

Williamson Plans to Build \$425,000 Hotel.

Williamson, W. Va., November 17—[Special]—Citizens of Williamson have effected the organization of the Williamson Community Hotel Corporation with W. A. Wilson, chairman, for the purpose of building a 150-room hotel here to cost about \$425,000. The Hockenbury System, Inc., Harrisburg, Pa., has been engaged to put on a stock sale and representatives of the organization are doing preliminary work. It is the purpose of the promoters to have details so arranged by February 1 that estimates may be invited from contractors about that time. Meanor & Handloser, of Huntington, W. Va., have been engaged as architects and are making preliminary plans.

Contract Let for \$1,250,000 Building.

Kansas City, Mo.—Joseph A. Bruening, representing Mrs. Rodella Dwight Lease, has awarded contract to the Pratt-Thompson Construction Co. of this city for the construction of the 12-story Board of Trade building here to cost about \$1,250,000. The structure will be 142 by 145 feet, H-shaped, of concrete construction with composition roof and concrete floors. It will be equipped with seven elevators, metal doors, vaults, mail chutes and steam heat. McKecknie & Trask, of Kansas City, are the architects.

\$300,000 Bank Structure Planned at Tyler.

Tyler, Tex.—Plans submitted by Lang & Witchell of Dallas, for the erection of a \$300,000 bank and office building for the Citizens National Bank of this city have been accepted. The building will be six stories and basement, the first two floors of which will be used by the bank and the remaining floors devoted to offices.

Officers of the bank include Gus F. Taylor, president; R. Bergfeld, and J. W. Fitzgerald, active vice-presidents; O. F. Sledge, vice-president and Clay Hight, cashier.

Bids Invited on Big Augusta Store.

Augusta, Ga., November 17—[Special]—Bids will be received until December 4 by the J. B. White Co., of this city for the erection of its big department store on Broad street. The building will be four stories, 271 by 76 feet, of steel frame and wood floor joist construction, with a built-up composition roof, maple and concrete floors, metal doors, steel sash and trim and wire glass. It will be equipped with the Warren Webster vapor system of heat and will be served by two passenger elevators and one freight elevator. Willis Irvin, of Augusta, is the architect.

THE IRON AND STEEL SITUATION

Seasonal Decline in Buying of Steel.

Pittsburgh, Pa., November 19—[Special]—There has been a considerable falling off in orders for finished steel products since the first of the month, while October had shown an increase over September in bookings, both in new orders and in specifications against old contracts. It remains the case that the steel market is giving a better account of itself than was expected. The decrease in buying now is recognized as being seasonal, since all consumers prefer to have inventories as light as possible January 1.

Thus far in the month there has been but little decrease in steel mill operations. Since the beginning of September there has hardly been enough change in steel production to cut any figure. Reports now in circulation as to the percentage rates at which steel mills are operating are altogether misleading if the percentages are assumed to be based on normals. It is a fair estimate that steel ingot production last week was at a rate of about 40,000,000 tons a year, and at the same time it has been said that mill operations averaged about 76 per cent, this being divided into 86 or 87 per cent for the Steel Corporation and somewhat under 70 per cent, say about 68 per cent, for the independents. These percentages would suggest that there is quite a deficiency in steel production, but the matter takes quite a different aspect when it is pointed out that last April the steel mills produced at a much higher rate than ever before in the history of the industry, even breaking the highest war-time rate attained, yet by the same method of computation that is being used now the mill operation last April was only 93 or 94 per cent. That is, the percentages are computed, not against any normal or even against the highest rate ever attained for a single day, but against a conjectural or at least a theoretical base.

It is more illuminating to say that steel ingot production at 40,000,000 tons a year is at one-fourth greater rate than the average in the four post-war years 1919 to 1922 inclusive, and at one-third greater rate than in 1912 and 1913, which were by a margin of 20 per cent the best pre-war years in point of tonnage.

Naturally in these circumstances, and with earnings per ton in the last quarter at really a moderate rate, the steel mills are quite indisposed to lower prices, and they will be content to see production decrease sharply as the end of the year approaches without being stampeded.

There are very strong prospects that steel prices ruling since advances ceased last April will continue for months into the new year in the case of sheets, tin plates, wire products and merchant pipe. As to bars, shapes and plates there is some question, partly because these lines had a greater advance, in the general movement, than the other products, and partly because construction work depends so much on them. One prediction is ventured, that prices of bars, now 2.40c., and shapes and plates, now 2.50c., will be lowered a few dollars a ton to invite business when the time is ripe and then put up a trifle to protect the orders.

The Pittsburgh district coal market continues in poor shape, but can hardly be said to have really lost any ground because it has been in poor shape for months. The idea of any bottom dropping out of the market on account of the ending of lake shipments is scouted, it being said that any bottom the market may have had dropped out long ago. Steam mine-run, Pittsburgh district, is \$1.85 to \$2.00 and steam slack 85 cents to \$1.00. The latter is expected to advance, as the ending

of lake shipments, which are all of screened coal, will decrease the offerings of slack.

Connellsville coke has shown no improvement, being at \$3.25 to \$3.50 for heating, \$3.75 to \$4.00 for furnace and \$5.00 to \$5.50 for foundry coke.

In this district there has been no improvement in pig iron demand, and prices have slid off somewhat more. In most other northern districts inquiry has had a sharp increase in the past week or ten days, suggesting that consumers think it is at last time to take hold. The valley market is down to \$23 for Bessemer, \$21 on basic and \$22 on foundry, with \$1.76 freight to Pittsburgh.

Sales Increase in Southern Iron Market.

Birmingham, Ala., November 19—[Special]—The pig iron market in the Birmingham district has undergone very little change recently except that the sales are more numerous and the aggregate is more satisfactory. The policy on the part of consumers to buy in very small lots, hand to mouth manner, is still pronounced but there is more iron being purchased, the surplus stock on the yards is gradually slumping and the production will not for the time being have to be curtailed further. Many reports have been current that some of the larger interests have been in the market but no publicity is as yet given to details of the deals, if they have been made.

The production in Alabama is still around 215,000 tons a month and expectations are that November make will exceed that of October. The quotations are at \$20 the ton and some melters are still seeking concessions. Local melters are being asked \$21 per ton by furnace interests, in fact, there are some companies which will not sell under \$22, but their business is light.

Not much iron, if any, has sold into 1924 but there is hope that between now and the middle of December inquiries in hand will develop in transactions that will call for a large tonnage on the turn of the year. In practically every instance, the present trades for iron in one to three car lots at a time call for immediate delivery and the cooperation being offered by the transportation lines is bringing about 24' to 48 hours delivery in the territory bounded by Chattanooga and Knoxville, on the north, and New Orleans on the south, while small foundries in Southern states have to wait but little longer. Where shipments have to be made of three and more days travel, the iron is started on the day following receipt of order, if the consumer is willing to receive the iron at once.

Survey of the general conditions among the iron melters shows that the cast iron pipe makers, pressure pipe makers, have plenty of work in sight for the entire winter; the cast iron soil pipe and fittings manufacturers have recently been receiving some little business, despite the fact that this is the off season for this industry, and a larger production has been noted; the stove makers are still manufacturing stoves and ranges and have bright prospects for the future; the radiator works loses no time in its steady production; other iron-using plants are going and reporting good production. Reports from Anniston, Gadsden, Bessemer and other places where soil pipe is being made on a large scale are to the effect that there is a better feeling in the market and two or three companies have advanced prices.

The Gulf States Steel Company with four open hearth furnaces and its finishing mills in operation has been shipping its products steadily and very little is going to the warehouse. This company took on a little Japanese and

other export business and included were some rush orders, which were handled promptly. The American Steel & Wire Company has been shipping its products also quite steadily. The Tennessee Coal, Iron & Railroad Company has been lagging only slightly in its various steel making and rolling departments. The rail orders in hand with the Tennessee Company, heretofore announced, including 50,000 tons for the Louisville & Nashville railroad company, 40,700 tons for the Southern Railway, 13,400 tons for the Nashville, Chattanooga & St. Louis railroad, 30,000 tons for the Southern Pacific, \$750 for the Missouri, Kansas & Texas railroad, 8000 tons for the Missouri Pacific and other orders will mean steady operation of the rail mills for several months after the turn of the year.

The coal production in Alabama is still under 350,000 tons a week. The steam coal demand is far from satisfactory. The furnace company mines are operating steadily, except in some few instances while the independent company operations are around four and five days a week, with smaller operations not doing as well. Domestic coal is in strong demand but this is but a partial output of the coal mined.

The coke market is weak. Prices are down to between \$5.50 and \$7 the ton, by-product foundry coke. The beehive coke makers are asking a little better. Production has been curtailed somewhat. The Alabama Company have their Searles beehive ovens down and some of the by-product coke ovens are being repaired. Some Alabama coke is still being shipped from this district. The home consumption is not as extensive as it has been and consumers are buying in small lots, just as in the pig iron market, there being a certainty that the product can be had at any time.

The scrap iron and steel market is still without life except in few instances, some No. 1 cast having moved a little recently and a little tonnage of steel rails having been shipped. Dealers in old material are keeping a well assorted stock on hand.

The higher officials of the United States Cast Iron Pipe & Foundry Company inspected the large plants of the company in the Southern territory last week, the pipe shops in North Birmingham, Bessemer and Anniston, Ala., and Chattanooga, Tenn. Considerable attention was paid to the De-Lavaud machines in operation at North Birmingham, five new machines having recently been started up. It is believed that announcement will be made shortly that a large purchase of iron has been made. The pipe business is good.

Quotations on pig iron and iron and steel scrap follow:

PIG IRON

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$20.00 to \$22.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$20.50 to \$22.50; iron of 2.75 to 3.25 per cent silicon, \$21.00 to \$23.00; iron of 3.25 to 3.75 per cent silicon, \$21.50 to \$23.50; iron of 3.75 to 4.25 per cent silicon, \$22.00 to \$24.00; charcoal iron f. o. b. furnaces, \$32.00 to \$33.00.

OLD MATERIAL

Old steel axles	\$19.00	to	\$20.00
Old iron axles	23.00	to	24.00
Old steel rails	15.50	to	16.50
Heavy melting steel	14.00	to	15.00
No. 1 cast	18.00	to	19.00
Stove plate	15.00	to	16.00
No. 1 R. R. wrought	13.50	to	14.00
Old car wheels	17.00	to	18.00
Old tramcar wheels	17.50	to	18.50
Machine shop turnings	8.00	to	9.00
Cast iron borings	9.00	to	10.00
Cast iron borings (Chem.)	18.00	to	19.00

New Hotel for Lauderdale Beach, Fla.

Miami, Fla.—A new hotel to cost about \$175,000 will be erected at Lauderdale Beach by the Lauderdale Beach Hotel Co., of which C. A. Roberts, of this city, is president. The building will be three and four stories high, of Spanish renaissance type, and will contain 54 rooms. It will be constructed of concrete with walls finished in stucco. August Geiger is the architect and George Jahn the general contractor, both of Miami.

RAILROADS

Freight Traffic for Nine Months Breaks Previous High Records.

A new high record in the amount of freight carried was made by the railroads of the United States during the first nine months of this year, according to reports filed by the carriers with the bureau of Railway Economics.

The freight traffic for that period amounted to 343,796,799,000 net ton miles. This was an increase of 2.79 per cent over the corresponding period in 1920 when the previous record was made, and which amounted to 334,457,000,000 net ton miles.

Compared with the first nine months of 1918 when freight traffic was greatly stimulated by the war, the total from January 1 to October 1 this year was an increase of 4.86 per cent. It also was an increase of 31 per cent over the corresponding period last year when freight traffic was affected, however, by the strikes of both coal miners and railway shopmen.

Freight traffic in the Eastern district during the first nine months this year was an increase of 39 per cent over the corresponding period last year; in the Southern district an increase of more than 27 per cent, and the Western district an increase of nearly 22 per cent.

For the month of September this year alone, the freight business of the railroads of this country totaled 39,449,128,000 net ton miles, which was the greatest traffic for any September in history, except in September 1920 which exceeded it by about 3½ per cent and September 1918 which was greater by about one-third of one per cent. September this year, however, was an increase of nearly 15 per cent over the same month last year, with the Eastern district showing an increase of nearly 19 per cent; the Southern district, 14½ per cent; and the Western district, 19.2 per cent.

To Be a Link in Kansas City Southern.

The Kansas City & Grandview Railway Co., recently chartered, is authorized to build a line from Leeds, Mo., which is now within the limits of Kansas City, to Grandview, about 14 miles, that will eventually be a link in the main line of the Kansas City Southern Railway, which now runs its trains over a branch of the Frisco system between those points this road having a ruling grade of 1.62 per cent. The new line will be more modern and with improved grades, although the projected construction will be heavy. Contracts will not be awarded for the work until further authority has been obtained from the Interstate Commerce Commission to issue securities to meet the estimated cost of \$1,800,000.

The officers of the Kansas City & Grandview Railway Co., which will be a subsidiary of the Kansas City Southern Railway Co., are James Walsh, president; M. H. Davis, vice-president; Henry W. Fox, secretary and treasurer; W. E. Davis, general solicitor; W. H. Woodson, assistant general solicitor and auditor.

Freight Over 1,000,000 Carloads Per Week.

Loadings of revenue freight on the railroads during the week ended November 3 were 1,035,776 cars, or 38,189 cars less than during the preceding week, according to a report from the car service division of the American Railway Association, the decrease marking the usual seasonal decline in freight movement. This was the twentieth week this year that loadings of revenue freight exceeded 1,000,000 cars within twenty-four consecutive weeks. More than 42,600,000 carloads of revenue freight have been recorded since January 1.

Effects of Reductions in Freight Rates.

The Bureau of Railway Economics, Washington, D. C., reports that owing almost entirely to reductions in freight rates, including those which were voluntary on the part of the carriers and those made by order of the Interstate Commerce Commission, the aggregate freight bill of the country was about \$431,000,000 less during the first eight months of this year than it would have been if the rates which existed during the same period in 1921 had been in effect. Compared with the rates prevailing during the first eight months of 1922 the total freight bill represents a reduction of about \$282,750,000, it is stated, due to the voluntary reduction on agricultural products which became effective January 1, 1922, to the general rate reduction of ten per cent which took effect July 1, 1922, and to a number of individual adjustments of freight rates. The average revenue received by the railroads for carrying a ton of freight one mile was 1.109 cent during the first eight months of this year; in the same period of last year it was 1.212 cent.

Final Argument on Clinchfield Case.

Final argument will be heard on December 29 by the Interstate Commerce Commission on the application of the Atlantic Coast Line and the Louisville & Nashville Railroad for approval of their lease of the Carolina, Clinchfield & Ohio Railway, evidence for and against the lease agreement having been previously heard.

Caldwell Cotton Mills Near Completion.

The Caldwell Cotton Mills, Hudson, N. C., is building a 6000 spindle mill on fine yarns costing \$250,000. It is now nearly finished. W. W. Abee, of Hickory, N. C., is the contractor. Twenty of the most modern type of mill houses are about completed, and an additional number are to be erected. All of the work is being done on the day labor basis.

Mr. Abee in the last eighteen months has built two mills, the Highland Mills at Hickory, and a cordage mill, the largest in the country, at Granite Falls, for the A. A. Shuford Co. of Hickory. There are said to be only three cordage mills in the United States.

The Caldwell Cotton Mills makes the ninth cotton mill erected by Mr. Abee.

The Appalache Hosiery Mill, Landrum, S. C., has been chartered with a capital stock of \$50,000 for the purpose of manufacturing hosiery. Its officers are Joseph Lee, president, and B. F. Owens, secretary.

TEXTILE

New Plant of Stark Mills, Hogansville, Ga.—Completion Early Next Year.

The erection of the new textile plant of the Stark Mills at Hogansville, Ga., began in June, 1923, and is expected to be completed in the early part of 1924. The plant is a subsidiary of the International Cotton Mills which already have a plant at Hogansville. The new plant is about three hundred feet from the old one and on the opposite side of the main line of the Atlanta & West Point Railroad. This location affords certain advantages both for construction and operation.

The buildings consist of a main mill 550 feet long by 130 feet wide, three stories high with basement 250 feet long on the north end; a combined storehouse and picker building; a boiler house and 129 houses for operatives.

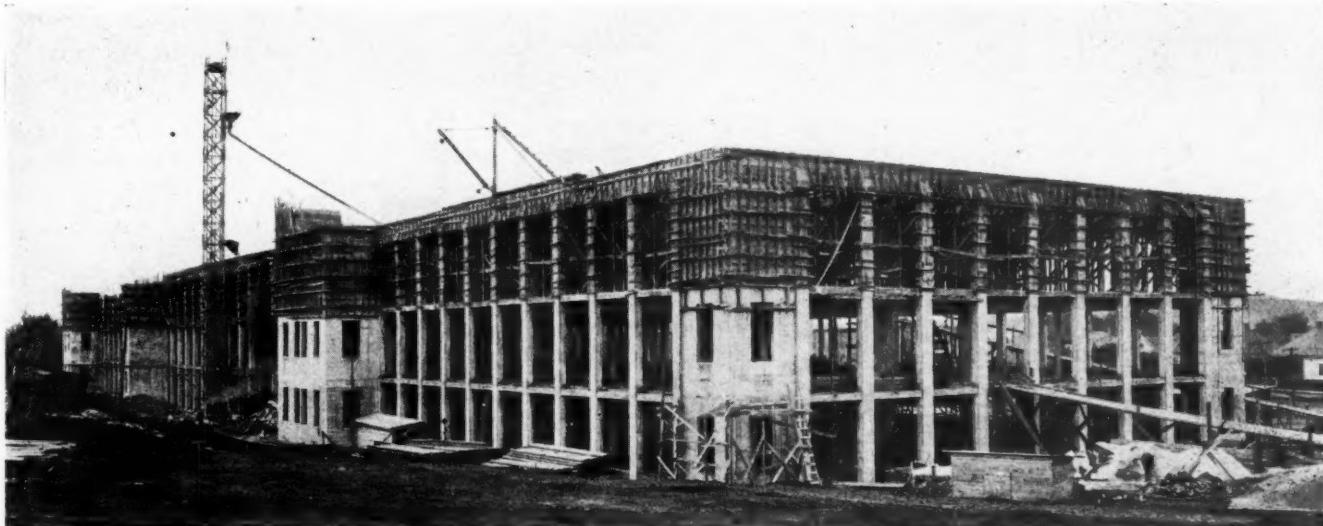
The mill building is a reinforced concrete structure. The storehouse and picker building is a standard slow-burning timber and brick building and is located in the rear of the main mill. The picker building proper is 90 feet long by 70 feet wide, two stories high, with dust room in the basement while the storehouse is 70 feet by 70 feet, four stories high. The former is connected to the main mill by a bridge at the second floor level.

The boiler house is a brick building, 43 by 45 feet, with plank on steel trusses for roof. It will house boiler plant equipment required for heating purposes only, as hydro-electric power for operation of machinery will be purchased, from the Columbus Light & Power Company.

The present village will be enlarged by the addition of 129 houses for operatives. A complete waterworks system, taking its supply from a deep well, is being constructed to furnish service water and fire protection; a modern sanitary sewer system is being installed, and electric lighting is provided for the houses. The village already has a commodious community house and a modern school building so that the operatives will have all the conveniences and benefits of an up-to-date city. The houses are well built and attractive, and are located on lots 70 feet by 150 feet deep. The streets are laid out 40 feet wide.

The Stark Mills will have 35,000 spindles and will manufacture tire fabrics. It will employ 325 operatives and will use 150 bales of cotton per week.

The mill is being equipped, at considerable expense, with an air conditioning system which will supply and circulate



STARK MILLS UNDER CONSTRUCTION AT HOGANSVILLE, GA., BY THE INTERNATIONAL COTTON MILLS OF BOSTON, MASS.

fresh, clean air at uniform temperature and with suitable humidity to the various departments.

The A. J. Krebs Company, of Atlanta, Ga., are the contractors for erection of the concrete mill structure. W. P. Francis, Atlanta, has the contract for the general construction work, including the storehouse, picker building, boiler house, transformer house and the wood floors and brick spandrel walls in the main mill. The steel sash were furnished and erected by David Lupton's Sons Company, Philadelphia; the freight elevators by the Reliance Elevator Company, of Chicago; the central heating and humidifying system by the Parks-Cramer Company, of Fitchburg, Mass., and the elevated steel tanks (one 50,000 gallon and one 100,000 gallon) and boilers by the R. D. Cole Manufacturing Company, of Newnan, Ga. The LaGrange Lumber & Supply Company, of LaGrange, has contract for building the operatives houses; A. D. Bradfield, contractor of LaGrange, is installing the waterworks system and the Rockwood Sprinkler Company, of Atlanta, has contract for the sprinklers and fire protection system for the mill.

Lockwood, Greene & Company, of Atlanta, Ga., and Boston, Mass., are the engineers for the project.

Growth of Textile School at Clemson College.

Clemson College, S. C., November 17—[Special]—With the appointment of Robt. K. Eaton as Professor of Weaving and Designing, to succeed Prof. C. W. McSwain, and the selection of Malcolm E. Carpenter and J. C. Lake for newly created positions, The Textile School faculty is now complete and that department of the college is better prepared than ever before to handle its teaching work, says Prof. Chas. S. Doggett, director of the department.

Prof. Eaton comes to Clemson well equipped to handle his important work. He is a graduate of Bowdoin College and of the Philadelphia Textile School, where he specialized in weaving and designing.

Malcolm E. Carpenter has been appointed to fill a position as instructor in carding and spinning, and J. C. Lake to a position as teaching fellow in the dyeing division. Mr. Carpenter is a graduate of New Bedford Textile School and has had experience in the New Bedford mills, and in the cotton testing laboratories of the Firestone Company, Akron, Ohio, while Mr. Lake is a graduate of Wake Forest College, and was a laboratory assistant there before coming to Clemson.

The Textile Department, as now organized, gives a total of over 30 courses in the several divisions; namely, textile chemistry and dyeing, weaving and designing, carding and spinning. Two other lines of work are: First, textile re-

search in cooperation with the United States Department of Agriculture, and training for industrial education in cooperation with the State Department of Education.

Every part of the big textile building is crowded, so steady and decided has been the growth of textile work at Clemson. There is now a total of 117 students taking courses in textile industry. Many graduates of the textile school have had marked success in their work.

Cotton Mills at High Shoals, N. C., Reported Purchased by Rhode Island Interests.

The Manville-Jenckes Company, Pawtucket, R. I., holders of the Loray interests in Gastonia, N. C., are reported to have purchased the entire holdings of the High Shoals Cotton Mills, High Shoals, N. C. These include the plant buildings, 18,500 spindles, 600 looms and 1300 acres of land.

Press reports state that the consideration is \$1,000,000 but this cannot be confirmed. It is further stated that plans call for the conversion of the High Shoals plant into a weave mill and that additional units to the present equipment will be made. The plant has been engaged in the manufacture of sheetings.

The Manville-Jenckes Company is capitalized at \$39,000,000 and owns plants both North and South. It operates 679,000 spindles. The Loray Mills at Gastonia, with 135,000 spindles operating, is its biggest project in the South.

Another Gastonia Mill Starts Production.

Gaston, N. C.—Mill No. 2 of the Flint Manufacturing Co. has recently been placed in operation here. The mill has 12,672 ring and 7056 twister spindles, 46 cards and 24 combers, and sufficient floor space has been provided for additional equipment.

The structure is of reinforced concrete. It is 384 feet long over all, giving a two-story height for 256 feet and one story for 128 feet, the width of both sections being 135 feet.

Plans for the mill were prepared by Robert & Co., engineers, of Atlanta, Ga. The Turner Construction Co., New York City, were the contractors and builders. Electric motors were furnished by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Mill machinery was supplied by the Whitin Machine Works, Whitinsville, Mass.

The officers of the mill are: L. L. Jenkins, president; S. N. Royce, vice-president; J. L. Gray, general superintendent; J. H. Separk, secretary-treasurer.



FLINT MANUFACTURING COMPANY PLANT RECENTLY PLACED IN OPERATION.

GOOD ROADS AND STREETS

INVITES BIDS ON 140 MILES.

West Virginia Will Also Receive Proposals for a Number of Bridges.

Charleston, W. Va., November 17—[Special]—The State Road Commission has invited bids for the construction of a total of nearly 140 miles of roads in various counties of the state, together with a number of bridge projects, proposals to be received on different dates. Bids will be received on December 13 for the following projects: Ten miles of grading and draining in Monroe County; 6.3 miles of paving with bituminous macadam in Pocahontas County; 6 miles of grading and draining in Logan County; 7 miles of the same work in Taylor County, and 6.5 miles in Lewis County; 8.14 miles of concrete paving in Doddridge County; 5 miles of grading and draining in Preston County; 5.6 miles of grading, draining and paving with bituminous macadam in the same county; 8 miles of the same construction in Monongalia County, and 5 miles of grading and draining in Hampshire County.

On December 11 the commission will receive bids on the following: 8.15 miles of bituminous macadam in Fayette County; four-tenths mile of grading, draining and paving with bituminous macadam in the same county; 5 miles of bituminous macadam in Greenbrier County; 9.8 miles of grading and draining in Wayne County; 4 miles of grading, draining and concrete paving in Wood County; 3 miles of the same construction in Ritchie County; 1 mile of grading and draining in Calhoun County; two-tenth miles of grading, draining and concrete paving in Wetzel County; 10.8 miles of grading and draining in Webster County; 11 miles of the same work in Preston County, and 8.9 miles of grading, draining and paving with bituminous macadam in Barbour County.

Bids will also be received until December 11 on the following bridges: Superstructure of steel pony truss bridge in Wayne County with 85-foot span; concrete through girder bridge in Wetzel County, with 35-foot span, and four concrete bridges with 80-foot spans each; 150-foot steel superstructure in Marshall County; concrete arch bridge of two 50-foot spans in Webster County, with a similar bridge of 80-foot span; masonry sub-structure and 140-foot span steel through truss superstructure in Gilmer County; concrete deck girder bridge with 40-foot span in Marion County; concrete arch, two 60-foot spans, in Randolph County; three concrete bridges of the through girder type each with 40-foot spans in Randolph County; superstructure only of 80-foot span pony truss bridge in Grant County, and three 20-foot concrete slab bridges in the same county.

Proposals will be received at Buckhannon until December 10 jointly, by the State Road Commission and the County Court of Upshur County, for grading, draining and concrete paving on 7.05 miles in Upshur County. E. B. Carskadon is the secretary of the State Road Commission, with offices in Charleston.

Maryland State Roads Commission Open Bids.

Bids have recently been opened by the Maryland State Roads Commission at its office in the Garrett Building, Baltimore, for paving Park Heights avenue and Singer avenue, Baltimore, with sheet asphalt. The Hudson Paving Co., of New York, submitted the lowest bid at \$263,000 for the two jobs.

Paving on Park Heights avenue is to extend from Keyworth avenue to Rogers avenue, and on Singer avenue from Reisterstown road to Park Heights avenue, making an extension practically of Garrison avenue.

Kentucky Awards Road and Bridge Contracts—

Eighty Miles to Cost Nearly \$1,500,000.

Frankfort, Ky., November 17—[Special]—The State Highway Commission at its office in this city has awarded contracts for nearly 80 miles of roads to cost close to \$1,500,000. A number of bridge contracts have also been awarded. The following are the projects: Two and six-tenths miles of grading and draining in Knox County, Costello Bros., Knoxville, Tenn., contractors at \$65,457; 5.8 miles widening and surfacing with gravel in McLean County, Corum Bros., Madisonville, Ky., \$60,497; 8.4 miles of gravel surfacing in Henderson County, Corum Bros., \$155,948; 19.2 miles of gravel surfacing in Webster County, Peacock Construction Co., Yale, Mich., \$209,802; 7.5 miles of gravel surface in Hopkins County, N. E. Stone & Co., Madisonville, Ky., \$136,604, and for 9.25 miles in the same county, Peacock Construction Co., \$95,003.

For 2.6 miles of grading and drainage in Daviess County, Costello Bros. secured contract at \$25,051; 7 miles of water-bound macadam resurfacing in Nicholas County, J. S. Walton, Princeton, Ky., \$39,445; 3.16 miles of reinforced concrete paving in Campbell County, E. E. Hines & Son, Harrison, Ohio, \$111,534; 10.098 miles of the same construction in Campbell and Pendleton counties, Cynthiana Construction Co., Cynthiana, Ky., \$393,648, and for 6.32 miles of the same paving in Kenton County, the same contractors received the award at \$197,576.

Cash & Lynn of Stanford, Ky., secured contract at \$8180 for 723 feet of paving in Somerset, Pulaski County; F. M. Schimfessel, Clay City, Ky., at \$4216 for 1.31 miles of grading and draining in Powell County, and the Brooksville Bridge Co., Brooksville, Ohio, at \$39,266 for a 162-foot steel span bridge in the same county. R. B. Tyler Co., of Louisville, Ky., was awarded contract at \$9975 for a bridge in Hardin County.

Polk County Paving and Bridge Bids.

Bartow, Fla.—Sealed proposals will be received by the Polk County Board of Commissioners, Bartow, until December 4 for approximately 96,000 square yards of paving in the county, with necessary clearing, grubbing, grading, ditching, curbing, drain pipes and head walls. The following types of paving will be considered: Bituminous mattress, bituminous concrete, asphalt pavement on clay base and cement concrete.

Bids will also be received for a concrete steel bridge and about 160 cubic yards of reinforced concrete culverts, abutments, piers, footings, retaining walls, wings, bulkheads and timber piles.

Plans and specifications may be seen at the office of J. D. Raulerson, clerk of the circuit court, or at the office of W. Lacy Boyd, engineer in charge, both of Bartow.

Goethe Township Invites Highway Bids.

Estill, S. C.—Bids will be received until November 28 at the offices of the Goethe Township Highway Commission, Estill, for the construction of 13.123 miles of road on State route No. 33 in Hampton County, beginning at the Hampton-Allendale county line near Fairfax and extending to Estill. Bridge work will consist of a creosoted timber structure of nine 14-foot spans. Separate bids will be received for the roadwork and the bridge.

Plans and specifications, and forms of proposals are on file at the office of W. C. Cathey, division engineer, Orangeburg, S. C., and at the offices of the State Highway Engineer at Columbia.

Will Build Bridge Over Black River.

Georgetown, S. C.—The construction of a reinforced concrete and steel bridge over Black River in Georgetown County will soon be started by the Board of County Commissioners. Bids will be received until November 28, the work to consist of the bridge, and 1936 feet of earth approaches with sand clay surfacing. They will be awarded under the following contracts: Contract 1—piers, concrete approaches, fenders, floors and surfacing; contract 2—steel superstructure; contract 3—earth approaches.

Plans, specifications and proposal forms are on file at the office of the State Highway engineer at Columbia.

Links in State Highway to Cost \$3,300,000.

Little Rock, Ark.—For the construction of connecting links in the state highway system of Pulaski County, Arkansas, G. H. Sykes, district engineer for the sixth district which includes that county, estimates the cost as \$3,300,000. Connecting links will call for building a total of 95 miles, the gaps remaining to be constructed including 57 miles of primary roads, 10.5 miles of secondary roads and 28 miles of state roads.

Chambers County Invites Bids on Eleven Miles.

Lafayette, Ala.—Sealed bids will be received by the County Commissioners of Chambers County at their office here until December 5 for grading 11.1 miles of road on the highway from Marcourt to Abanda, with the construction of bridges, culverts, head walls, etc. Separate bids will be received in lump sum for the grading and also for the bridges and concrete work. Charles E. Fuller, Judge of Probate, is chairman of the county commissioners.

Harris County to Vote on \$750,000 Bonds.

Houston, Tex.—The county commissioners of Harris County plan to set December 18 for a proposed election on \$750,000 bonds for the purpose of building permanent bridges, including one over the ship channel here, and for paving Washington avenue. The amounts will be apportioned as follows: \$600,000 for concrete county bridges, \$100,000 for the bridge over the ship channel and \$50,000 for paving.

Jack County, Texas, Votes \$400,000 Bonds.

Citizens of Jack County, Texas, have voted \$400,000 for highway construction and County Judge John D. McComb, Jacksboro, advises that they will probably issue five and one-half, one to thirty year, serial bonds. The date of sale is not set.

Notes on Good Roads Construction.

The State Road Department, Jacksonville, Fla., has opened bids for building the proposed Kissimmee River bridge between Highland and Okeechobee counties, E. W. Parker of Tampa submitting the lowest bid at \$160,197.

The Spartanburg County Highway Commission, Spartanburg, S. C., will receive bids until November 27 for building 4,296 miles of concrete road extending from Spartanburg toward the Pacolet River. Plans and specifications, etc., are on file at the office of E. D. Sloan, division engineer, Greenville.

In addition to State Highway projects, Ouachita Parish, La., is expending about \$125,000 for road building and maintenance, according to a report of the Ouachita Parish road engineer. Included in this amount, is \$25,000 for construction of the Monroe-Swartz highway, \$60,000 for the Monroe-Jonesboro road and \$30,000 for the Monroe-Columbia-Mt. Vernon highway.

Florida Invites Road Bids on 95 Miles.

Tallahassee, Fla.—Sealed bids will be received by the Florida State Road Department, H. B. Phillips, Chairman, until November 27 for the construction of nearly 95 miles of road to be distributed among several counties. This work will include 12.42 miles in Nassau County; 13.59 miles in Brevard County; 11.33 in Pasco County; 7.77 miles in Volusia County, and 8.75 miles on another project in Pasco County.

There will also be 14.73 miles in Madison County; 5.68 miles in Sarasota County and 21 miles in Polk County.

Plans may be examined at the office of the State Highway Department and at the offices of the division engineers. J. L. Cresap is the acting state highway engineer.

Pottawomie County to Vote on \$965,000 Bonds.

Tecumseh, Okla.—December 11 has been set by the Pottawomie County Commissioners as the date for an election on a \$965,000 bond issue to build roads and bridges. The proposal is divided into three parts, the first to bond the county for \$200,000 to construct and repair bridges washed out in the recent flood of the North Canadian River, the second for \$100,000 to build a new bridge over the South Canadian River at Wanette, and the third for \$665,000 to build permanent roads in the county.

Falls County Lets Two Road Contracts.

Rosebud, Tex., November 17—[Special]—Falls County has awarded contracts for two sections of road on projects 410-B and 331-B, aggregating more than thirteen miles and to cost \$180,571. P. M. Skinner of Dallas, received contract to build 5.68 miles at \$95,769; Huse, Popejoy & Bro., Marlin, Tex., was awarded contract at \$84,802 to build 7.65 miles. Both projects will have a gravel surface. The J. P. Wehrung Co. of Lott, Tex., is the engineer.

Portland Cement Production Sets New Record in October.

Production of Portland cement in October broke all records for a single month. The report of the United States Geological Survey places the total production for the month at 13,350,000 barrels compared with 13,100,000 in September and less than 12,300,000 a year ago. For the ten months ending October 31, over 114,000,000 barrels were produced, exceeding last year's record output for the same period by 20,000,000 barrels or 22 per cent.

Shipments from the mills in October were 14,285,000 barrels, an increase of about 11 per cent over October 1922. Shipments for the ten months were close to 119,000,000 barrels or more than was shipped during the entire banner year 1922.

Stocks of cement in manufacturers' hands at the end of October were about 4,600,000 barrels or 450,000 barrels more than a year ago. Consideration of the fact that stocks of cement at the beginning of the year were very much lower than at the beginning of 1922, and the ten months' shipments have been 17,000,000 barrels greater than last year, serves to indicate how the industry has coped with the increased demand. The greatly increased efficiency of the transportation systems it is said has helped materially in making this record possible and recent increases in productive capacity have given the industry a substantially greater output.

\$1,250,000 School Bonds Voted at Alexandria.

J. F. Foisy, Mayor of Alexandria, La., wires the MANUFACTURERS RECORD that the recent bond election for \$1,250,000 School District No. 1, comprising the City of Alexandria and suburbs, was carried by a big majority. The sale will be in about 90 days. J. W. Bolen is president of the School Board.

LUMBER AND BUILDING MATERIALS

Further Decline in Lumber Movement.

Washington, November 15.—A further recession in the lumber movement of the country for the week ending November 10 is indicated in reports received by the National Lumber Manufacturers Association from 393 of the larger commercial sawmills of the country as compared with revised reports from 388 mills for the preceding week. While there was a decrease of 26,118,672 feet in shipments and 2,991,569 feet in orders, production increased 1,304,173 feet. The 133 reporting mills of the West Coast Lumbermen's Association and the 130 reporting mills of the Southern Pine Association show an increase in unfilled orders on hand from 630,107,439 feet of the preceding week to 633,598,086 feet this week.

For all the mills of the 7 reporting associations, shipments were 87 per cent and orders 82 per cent of production. For Southern Pine Association mills these percentages were 90 and 73, and for the West Coast mills 81 and 88. Most of the mills have a normal production for the week, according to which actual production was 108 per cent, shipments 91 per cent and orders 86 per cent.

The following table compares the lumber movement for the three weeks indicated:

	Past Week	Corresponding Week 1922	Preceding Week 1923 (Revised)
Mills	393	390	388
Production	248,556,779	225,227,806	247,252,606
Shipments	216,613,296	196,804,351	242,731,968
Orders	203,118,640	203,832,006	206,110,209

Reports received this week from 17 of the California Pine mills, representing 56 per cent of the California pine cut, give their production as 16,296,000 feet, shipments 13,032,-000 feet and orders 9,944,000 feet.

Compared with like period of 1922, the lumber movement for the first 45 weeks of 1923 is as follows:

	Production	Shipments	Orders
1923	10,744,038,184	10,667,563,932	10,119,515,644
1922	9,452,777,769	9,034,451,794	9,266,519,442
1923 Increase . . .	1,291,260,415	1,633,112,138	852,996,202

The West Coast Lumbermen's Association wires from Seattle that production for last week was 114,846,766 feet, sales 101,373,172 feet and shipments 92,821,360 feet. Production for reporting mills was 27 per cent above normal,

new business was 12 per cent below production and shipments were 8 per cent below new business.

From New Orleans, the Southern Pine Association advises that reports from 130 mills show 55,859,238 feet ordered, 68,456,196 feet shipped and 76,179,103 feet produced. Shipments were 10.14 per cent below production for the week; orders 26.67 per cent below production and 18.40 per cent below shipments. Orders on hand at the end of the week totaled 219,492,450 feet as against 243,053,427 feet at the end of the preceding week. Of the 76 mills reporting running time, 55 were on full or overtime, one being on double shift.

The California White and Sugar Pine Manufacturers' Association wires from San Francisco that car supply is normal, labor plentiful, no material snow as yet, no fires or other extraordinary happenings.

Winter Trucking on Cut-over Pine Lands—An Interesting Development in Southwest Louisiana.

Lake Charles, La., November 16—[Special]—The Powell Lumber Co., of this city, believes the cut-over pine lands of Southwest Louisiana are to be the future truck growing and winter garden sections of the South, and is spending large sums of money on a demonstration farm two miles west of Edna in Allen Parish to show that its faith is not misplaced.

W. P. Weber, president of the company and also president of the Lake Charles Association of Commerce, is supervising the experiments in growing winter and early spring vegetables. Mr. Weber, who has long been in the lumber manufacturing business, believes the permanent prosperity of the State depends on the settlement and cultivation of millions of acres of waste pine cut-over lands.

Accordingly Burton Mank, an experienced agriculturist, was engaged to manage the company's farm at Edna. The land used is typical pine woods land from which the stumps were removed two years ago. It has been thoroughly drained and on it one crop has been partly cultivated. The farm, known as the Burton Mank Vegetable Farm, contains about 40 acres. Work began on September 1 and now there are 15,000 tomato plants 18 inches high, 5 acres of sugar peas in

	LUMBER MOVEMENT FOR FORTY-FIVE WEEKS, AND FOR WEEK ENDING NOVEMBER 10.					
	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
Southern Pine Association :						
Total	3,481,028,421	3,317,423,071	3,538,307,161	3,181,856,478	3,339,875,112	3,334,436,795
Week (130 mills)	76,179,103	75,436,509	68,456,196	66,971,333	55,859,238	70,428,787
West Coast Lumbermen's Ass'n :						
Total	4,563,497,726	3,802,556,279	4,717,106,033	3,535,130,795	4,576,500,013	3,598,272,174
Week (133 mills)	114,846,766	93,790,103	92,821,360	82,954,345	101,373,172	88,766,219
Western Pine Mfrs. Association :						
Total	1,290,558,000	1,066,216,000	1,119,628,000	1,065,853,000	1,036,925,000	1,096,625,000
Week (37 mills)	29,907,000	27,231,000	23,653,000	13,451,000	19,000,000	18,400,000
California Redwood Association :						
Total	428,794,000	356,841,000	407,996,000	314,262,000	399,009,000	336,298,000
Week (15 mills)	10,990,000	10,080,000	8,125,000	7,844,000	6,881,000	9,520,000
North Carolina Pine Association :						
Total	394,002,737	428,649,853	405,069,338	441,760,999	325,472,619	420,902,473
Week (51 mills)	9,713,010	11,800,000	10,470,000	15,400,000	7,404,230	7,800,000
Northern Hemlock & Hardwood :						
(Softwood) Total	113,441,000	90,464,000	112,936,000	126,375,000	96,834,000	114,769,000
Week (17 mills)	1,453,000	1,427,000	1,221,000	1,957,000	1,320,000	1,525,000
Northern Pine Mfrs. Association :						
Total	472,716,300	390,627,566	366,521,400	369,213,522	344,899,000	365,216,000
Week (10 mills)	3,799,000	5,463,194	8,024,700	8,226,673	7,417,000	7,392,000
General Total for 45 weeks :						
(Softwood)	10,744,038,184	9,452,777,769	10,667,563,932	9,034,451,794	10,119,515,644	9,266,519,442
Northern Hemlock & Hardwood :						
Hardwood (45 weeks)	119,228,000	.....	141,093,000	.....	125,314,000	.....
Calif. White & Sugar Pine Mfrs. :						
(45 weeks)	1,076,394,000	.....	643,884,000	.....	.....	.....
General Total for Week	248,556,779	225,227,806	216,613,296	196,804,351	203,118,640	203,832,006
California White & Sugar Pine reports not included in totals because "orders" not reported.						

bloom, 4 acres of snap peas in bloom, 2 acres of cucumbers, 35,000 cabbage plants growing to be ready for January markets, 65,000 cabbage plants ready to be set out, 15,000 cauliflower growing, 4 acres in green onions and several acres in Bell peppers, eggplants and asparagus. In addition large quantities of turnips, carrots and other vegetables are growing, much of which will be ready for Thanksgiving markets.

A large force of men are engaged in preparing additional ground for late winter and early spring crops, including watermelons for May markets.

BIG CYPRESS MILL COMPLETED AT LACOO-CHEE, FLA.

Electrically Operated Plant for Production of Lumber, Laths, Shingles, Crates, etc.—Embodies Latest Features in Design and Equipment.

By D. A. GROFF.

The Cummer Cypress Company, with main offices at Jacksonville, has completed a mill at Lacoochee, Fla., with an annual capacity of 20,000,000 feet per year of high grade cypress.

The plant was designed by D. A. Groff, New Orleans, and construction was under the supervision of W. E. Mann, Wilmington, N. C. K. A. Phillips, manager of the mills, also directed construction.

The sawmill proper is 45 by 228 feet with a trimmer addition 26 by 32 feet, and lath and shingle mill, 82 by 32 feet. The sawmill is equipped throughout with machinery supplied by the Prescott Co., Menominee, Mich., including a heavy double geared log jacker with 1½-inch by 8-inch cable chain with 14-inch steel log dogs, 84-inch log cut-off saw, 3-arm kicker, 3-arm loader, oscillating steam nigger, 9-foot band mill, 3-block carriage, 60-inch openings with steam networks and steam receder, 90-pound railroad track, 14-inch by 44-foot steam feed, 12-inch by 30-inch live rolls, enclosed gear cases in yoke frames all mounted on steel roll cases, Wicks gang with double steam press rolls, 84-inch heavy duty edger, slasher and overhead air lift trimmer.

The logs are first brought to the mill by railroad, and then handled from the cars by a 12-ton steel crane having a 125-foot boom, supplied by the Browning Co., Cleveland, Ohio. Both cypress and pine logs go into the mill on the same chain, the cypress logs are manufactured into lumber and the pine logs into veneer blocks which are conveyed to the steam vats. The pine logs that will not do for blocks are placed on a small circular mill with light carriage and cut into lumber for making heads for orange crates. This lumber is in lengths of 3 feet to 6 feet and it is loaded on dry kiln trucks right from the saw and is then conveyed by an electric transfer car to the kilns.

The cypress lumber is conveyed by cable transfer to a point 300 feet from the mill into a building, 28 by 300 feet. Here the lumber is sorted into units which are carried to the piles in the yard by the electric Ross carriers. The lumber is then handled by electric stackers which permit high stacking with very little labor.

The lath mill is equipped with Prescott heavy duty lath bolters and lath mills having a capacity of 60,000 lath per day.

The shingle mill is equipped with Perkins & Co. machinery and has one hand and one power machine. The shingle stock comes from the band mill and is transferred by chains to a circular saw cut-off machine and there cut into the proper lengths and transferred by the knee bolter to the shingle machines. All blocks travel through an equalizer so that all shingles when manufactured will be of the proper length.

There is also a strip mill in connection with the lath mill to supply car strips which are used in loading railroad cars with crate material.

All the machinery in the foregoing mills is electrically driven and direct connected to motors made by the General Electric Co., Schenectady, N. Y. W. F. Lusk was the electrical engineer in charge of all installations.

The power plant is 77 by 84 feet, of concrete and steel construction. This building contains three 400 horsepower vertical water tube boilers, manufactured by the Casey-Hedges Co., Chattanooga, Tenn. The power units consist of two 600-kilowatt generators direct connected to steam turbines which run 3600 r.p.m. The building also houses a 90-kilowatt generator for lighting purposes. The generators and turbines were supplied by the General Electric Co. The turbines are operated condensing and are fitted with Wheeler upright condensers.

The fuel house is 60 by 30 feet and is of brick with steel roof construction. It is centrally located. The dust is conveyed from the sawmill by steel conveyor 24 inches wide. Fuel is also received from the veneer plant, box and crate factory and planing mill.

All the refuse from the mill is taken 600 feet by a cable conveyor and from that point by a steel conveyor to a burner.

The veneer plant building is 75 by 85 feet, and is equipped with two St. Joe lathes and one Blakslie lathe; these are fitted with clippers and other machinery necessary for the manufacture of veneer. There is a line of ten steam vats, 16 by 16 feet, with a conveyor from the saw mill running directly over them and discharging the blocks automatically into the top of the vats. The blocks are taken from the bottom of the vats into another conveyor, thence to the front of the lathes. This operation requires very little labor, as most of the work is done by machinery.

After going through the lathes and passing the clippers the veneer is loaded onto veneer racks which are taken by an electric transfer car to the veneer kilns. The kilns are manufactured by the Moore Dry Kiln Co., of Jacksonville, Fla. The veneer passes through the kilns and is conveyed to the crate factory by electric transfer cars, the product of the Prescott Co.

The crate factory building is 100 by 260 feet and is of structural steel, furnished by the Ingalls Iron Works, Birmingham, Ala. It is equipped throughout with the very latest crate and box making machinery. The refuse from this factory is conveyed to a hammer hog, after which it is taken to the fuel house.

As the crates are manufactured they are taken to a storage building, 100 by 400 feet, which has railroad tracks on both sides to facilitate shipping.

Report on Southern Pine.

The Southern Pine Association for the week ended November 9 reports as follows on 130 mills:

	Cars	Feet
Orders on hand beginning of week.....	10,944	232,089,408
Orders received during week.....	2,634	55,859,238
Total.....	13,578	287,948,646
Shipments during week.....	3,228	68,456,196
Orders on hand end of week.....	10,350	219,492,450

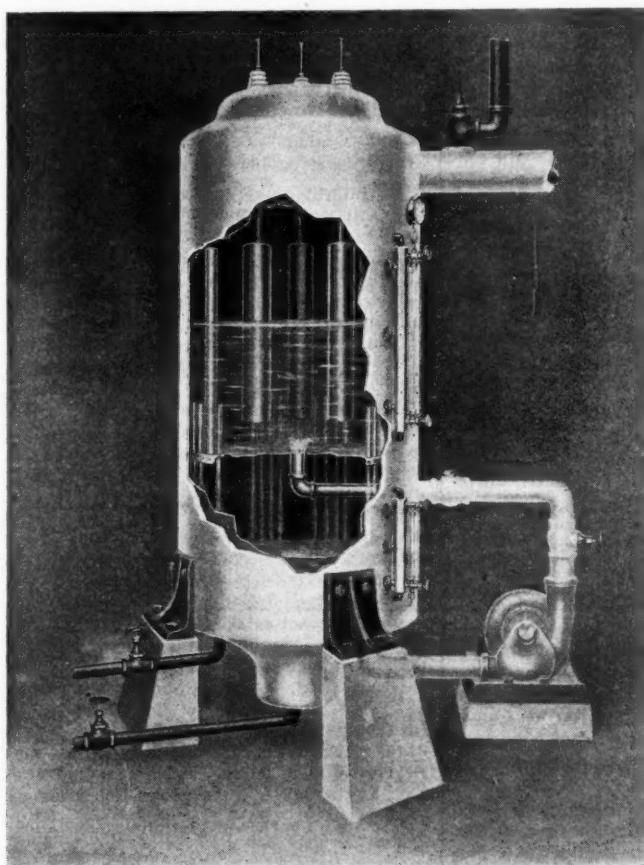
Production for the week was 76,179,103 feet. Shipments were 7,722,907 feet below production or 10.14 per cent. Orders were 20,319,865 feet below production or 26.67 per cent. Orders were 18.40 per cent or 12,596,958 feet below shipments. The week was 5,408,839 feet or 6.63 per cent below normal production and orders were 31.53 per cent or 25,728,704 feet below normal production. The decrease in orders on hand amounted to 12,596,958 feet or 5.43 per cent.

MECHANICAL

Electric Steam Generator for Industries.

An electric steam generator is shown in the accompanying picture. This device, according to E. H. Horstkotte, of the power and mining engineering department of the General Electric Co. which designed the machine, has already demonstrated its value in certain industries and it has a very broad field of service in many others. Central power stations in this country and in Canada have found the generator an admirable means of employing excess power. Pulp and paper mills in both countries are using it and textile mills should be particularly interested in it as many of them have surplus electrical energy in daytime as well as on Sundays and holidays.

The equipment as installed forms a complete generating plant capable of operation with a minimum of attendance.



SECTIONAL VIEW OF GENERATOR.

It requires power at the approximate rate of 10 K. W. for every boiler horsepower of steam generated. The complete equipment consists of a shell with supporting feet, the electrodes, insulators, steam and water gauges, safety valve, circulating pump and motor, and panel on which is mounted the control apparatus. The tank, or generator shell is mounted vertically, and is divided horizontally into two compartments; the upper one known as the electrode compartment, is where the generation of steam takes place; the lower is a self-contained hot well. Water entering the hot well from the feed water pipe is forced into the upper chamber by a motor-driven centrifugal pump located on a short external pipe line. From this chamber it flows back into the hot well through a number of small holes on the outer circumference of the dividing plate, which arrangement provides a continual circulation of heated water. Water in the

electrode chamber is held at the desired level by setting the valve in the circulating pump discharge line. A cross section of the apparatus is shown in the illustration.

Three large, round, iron electrodes are rigidly supported from the roof in the upper chamber, the supporting rods that carry the current entering through specially designed insulating bushings, which have a small duct in the top leading to the outside air. Consequently, if steam should leak through the packing into the upper section of the bushing, it will pass out freely instead of causing a pressure which might blow out the side of the insulator. Normally the electrodes are submerged and the three phase current passes through the water to the sides of the tank, or from electrode to electrode, steam being generated by the current flowing through the water, the temperature of which throughout the system is practically uniform. The safety valve takes care of increased pressure. Other contingencies are guarded against by interlocking various controls. Thus, should the circulating pump fail the water in the electrode-chamber drains into the hot well so that no more steam can be generated, and when there is no water in the chamber there is no more heat, so that when the water goes in again there is no danger of explosion for there is no hot metal. An emergency drain prevents too high a level of water.

Commendations, Kicks and Comments

Its Value in California.

L. C. WILLEMS, Director, Chamber of Commerce, San Francisco.—We are pleased to forward you herewith our check for \$6.50 covering the renewal of your magazine.

We have made considerable use of the MANUFACTURERS RECORD during the past year, using it as a reference source of information on what is going on in our Southern states. In addition to this, the writer finds your magazine of such general interest as to make it a point to always go over it personally each month.

Never Too Old to Be Young and Aggressive.

WILLIAM T. WELLS, Melbourne, Fla.—Although the MANUFACTURERS RECORD is worth much more to any thinking man than the \$6.50 we have been paying per year it would be an infraction of good business sense not to accept your offer and send you \$10.00 for two years.

Therefore I take pleasure in handing you my check on the Melbourne State Bank for \$10.00 to cover two years' subscription from this month's expiration date.

I have enjoyed the splendid descriptions of the development of cities and counties and the only thing that I object to is that I am too old to jump in and take a part in the big work that is being done in this southland.

A 36-Year Farmer And An Optimist

WM. J. HAILEY, "Oaklawn Farm", Dade County, Everton, Mo.—I consider the MANUFACTURERS RECORD one of the greatest commercial journals of America and do most cordially endorse its spirit and intent, namely: the general advancement of the South.

Myself a Southern native of the Lone Star state, and reared in the South, I have always thought it the greatest portion of our Union of indissoluble states, both naturally and commercially, and destined to play a very prominent, if not in the near future, a dominant part, in our national welfare.

Her resources are illimitable as compared to some more commercially favored sections and as time advances the South will most surely come into her own.

For 36 years a farmer, having been identified with the sons of toil, I am still an optimist, seeing a silver lining to the clouds of unrest, natural result of that period of inflation always following wars. I feel that the worst is over, that the individual farmer is the arbiter of his own fortune and must work out his own salvation by shrewd management, coupled with diversification of crops and the growing of livestock.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Bridges, Culverts and Viaducts

Ala., Guntersville—Marshall County interested in building bridge over Tennessee River at Guntersville. Address County Comrns.

Ark., Garland—Miller and Lafayette Counties granted franchise to Jesse Smith and Chas. A. Beasley, to construct toll bridge across Red River at Garland City, 20 mi. east of Texarkana and 10 mi. west of Lewisville; C. W. Nolan, Miller County Judge, Texarkana, and Andrew Jackson, Lafayette County Judge, Lewisville.

Florida—States of Florida and Georgia plan building bridge across St. Mary's River, marking boundary between 2 states; Florida State Road, Dept., Tallahassee, appropriated \$100,000.

Fla., Bartow—Details under Road and Street Construction.

Fla., Miami—Dade County contemplates building temporary bridge across cut-off canal at W. Flagler. Address County Engr.

Fla., Century—Escambia County Comrns., Pensacola, Fla., will receive bids until Dec. 11 to build western approaches to Freedom Bridge, over Escambia River, at McCurdy's Ferry, near Century; 2 pile trestle bridges, 64 and 32-ft. long, respectively; plans, etc., from Jas. Macgibbon, Circuit Clk.; H. E. Gandy, Chmn., Comrns.

Fla., Jensen—St. Lucie County, Jensen Bridge Dist., let contracts for 1.8 mi. bridge across Indian River, connecting mainland with island; to W. T. Hadlow, Jacksonville, at \$75,000 for woodwork portion, and to Austin Bridge Co., Dallas, Tex., at \$20,000 for steel draw.

Fla., Kissimmee—Details under Road and Street Construction.

Fla., Miami—Dade County plans expending \$41,700 to build concrete bridge over new cut, between Biscayne Bay and Atlantic Ocean, at Baker's Haulover. Address County Comrns.

Fla., Palm Beach—Palm Beach County Comrns., West Palm Beach, received low bid from American Bascule Bridge Corp., at \$36,447, to construct drawbridge across St. Lucie Canal, on Palm Beach loop road.

Fla., Sebring—State Road Dept., Tallahassee, Fla., received low bid from E. W. Parker, Tampa, at \$160,197.60 for Kissimmee River Bridge on Road No. 8, between Highlands and Okeechobee Counties.

Kentucky—State Highway Dept., Frankfort, Ky., let contracts for 2 bridges as follows: Powell County, 162 ft. steel span bridge over Red River on Clay City-Winchester Rd., Federal Aid Project No. 108, to Brooksville Bridge Co., Brooksville, Ohio, at \$39,266.83; Hardin County, over Shaws Creek, on Camp Knox-Elizabethtown Rd., Dixie Highway, Federal Aid Project No. 79, Sec. B, to R. B. Tyler, Louisville, at \$9975.50.

Ky., Danville — State Highway Comn.

Frankfort, will receive bids until Dec. 10 for substructure and superstructure of bridge across Dix River on Nicholasville-Danville road; substructure, 1450 cu. yds. concrete; 5000 lbs. reinforcing steel; superstructure, two 150-ft. and one 240-ft. steel spans; 20-ft. roadway; creosoted wooden floors; 450,000 lbs. structural steel; 10,000 F. B. M. creosoted lumber; Joe. S. Boggs, State Highway Engr.

Miss., Jackson—Illinois Central Ry. Co., F. L. Thompson, Ch. Engr., Chicago, Ill., plans building viaduct over railroad crossing at Capitol St.; approximate cost \$2,000,000.

Miss., Macon—Noxubee County will receive bids until Dec. 3 to furnish material and build 2 wooden bridges as follows: No. 343, over Sun Creek, on Webster road, at Glover Triplett's place; No. 344, over slough on Memphis and Bugs Ferry road, 1 mi. west of Bugs Ferry Bridge; Jno. A. Tyson, Chancery Clk.

Missouri—State Highway Dept., Jefferson City, Mo., plans building 3 bridges as follows: Howell County, over Robins Nerofit, on road from Willow Springs to Mt. View; three 25-ft. reinforced concrete deck girder spans; State Project Route 16, Sec. 52; Jackson County, over Chicago & Alton R. R. tracks, on state road; two 20-ft., three 18-ft. and one 37.5-ft. reinforced concrete deck girder spans; State Project Route 2, Sec. 6-A; Monroe County, over Otter Creek, on road from Paris to Shelbina, 75-ft. steel truss, and 22-ft. steel I-Beam spans; State Project Route 15, Sec. 288; B. H. Piepmeyer, Ch. Engr., Jefferson City.

Okl., Tecumseh—Pottawatomie County plans constructing and repairing bridges of North Canadian, \$200,000; build bridge over South Canadian at Wanette, \$100,000; build permanent roads in County, \$665,000; will vote Dec. 11 on \$965,000 bonds. Address County Comrns.

S. C., Georgetown—Georgetown County Comrns., will receive bids until Nov. 28 for bridge over Black River on State Route No. 40; 440-ft. reinforced concrete and steel bridge, and 1936 ft. earth approaches, with sand-clay surfacing; Cont. No. 1, piers, concrete approaches, fenders, floors, 44,497 lbs. reinforcing steel; No. 2, steel superstructures complete, 335,000 lbs. structural steel, fabricated and erected; No. 3, earth approaches; plans, etc., from State Highway Engr., Columbia, S. C.

S. C., Hampton—Details under Road and Street Coenstruction.

S. C., Society Hill—Society Hill Bridge Board, let contract to Mayfield Construction Co., Denmark, at \$69,080 for 6 mi., earth approaches to bridge across great Pee Dee River, between Marlboro and Darlington Counties; to Salmqns-Clements Co., Charleston, at \$35,871 for creosoted bridges.

Tex., Cleburne—Johnson County will receive bids until Dec. 4 for concrete bridge over Buffalo Creek, near Cleburne, on Cle-

burne-Itasca road; State Aid Project No. 445; R. E. Keller, County Engr.

Tex., Coleman—Details under Road and Street Construction.

Tex., Houston—Harris County plans expending \$600,000 for concrete bridges; \$100,000 for bridge over ship channel; \$50,000 to pave Washington Ave.; will vote Dec. 18 on \$750,000 bonds; State to furnish \$225,000; Chester H. Bryan, County Judge.

Tex., McKinney—Details under Road and Street Construction.

Va., Graham—Details under Road and Street Construction.

West Virginia—State Road Comm., Charles-ton, will receive bids until Dec. 11 to build 17 bridges as follows: Project No. 3188—Wayne County, 85-ft. steel pony truss span, over Stone Coal Bridge, No. 898; superstructure only; Wetzel County, 5 bridges; 35-ft. concrete through girder span, Scheidler Bridge, No. 886; four 80-ft. concrete spans: Moore No. 892; Wade No. 893; Cook No. 894; Huff No. 895; 3116-C—Marshall County—150-ft. steel superstructure, Denver Bridge No. 885; Webster County, 2: two 50-ft. span concrete arch Grassy Creek Bridge No. 690; 80-ft. span concrete arch Holly River Bridge No. 920; 3111—Gilmer County, masonry substructure, and 140-ft. span steel through truss, superstructure, Cedar Creek Bridge No. 842; 2135—Marion County, 40-ft. span concrete deck girder, Annaebelle Bridge No. 899; Randolph County, 2 sections, 117-two 60-ft. concrete arch spans, Leading Creek Bridge No. 846; 3033—three 40-ft. concrete through girder spans, over Ralston Run; No. 864, 865, 866; Grant County, 2 sections, 122-B—80-ft. span pony truss, superstructure only; Abrams Creek Bridge No. 883; 3146—three 20-ft. concrete slabs, Klines Gap Bridge No. 884; plans, etc., on file and from Div. Engrs.; E. B. Carskadon, Sec. Comn.

W. Va., Charleston—Details under Road and Street Construction.

W. Va., Williamson—Mingo County will receive bids until Nov. 27 for sub-structure and super-structure of Trancilife Bridge over Guyandotte River; Holton Cook, County Engr.

Canning and Packing Plants

Fla., Bartow—Lee and Kirkland will rebuild cannning plant, burned at loss of \$75,000.

Fla., Sebring—Sebring Citrus Growers Assn., W. L. Crews, Mgr., let contract at \$19,500 to J. A. Pery of Nocatee, Fla., for construction of superstructure of packing plant, to replace burned structure; building will be 110x144 ft.; corrugated iron construction; with built-up roof of asphalt and felt composition; mezzanine floor will be 48x110 ft.; will install Morgan box machine for crate manufacturing; capacity of plant 8 to 10 cars daily; cost of mechanical equipment \$17,592.

Clayworking Plants

Ala., Tredegar—Silicon Products Corp., Phila., Pa., will construct large reduction mill and silicon brick plant; Hedfield-Pennfield Steel Co., of Bucyrus, Ohio, will install brick making machinery; James Ore Concentrator Co., of Newark, N. J., will have charge of mill construction; Alabama Power Co. will supply power requirements; will install electric steam plant; James and Breckler, Chemical Engrs., Louisville, Ky., will have charge of chemical control of products of company; Charles L. Jackson, in charge of development plans.

Tenn., Oakdale—Cardiff Brick & Tile Manufacturing Co., capital \$20,000, incorporated by A. E. Venable, H. O. Reney and others.

W. Va., Martinsburg—Eastern Sewer Pipe & Brick Co., Dean Bldg., capital \$350,000; organized with F. Vernon Aler, Pres.-Treas., Martinsburg; Martin J. Beach, Sec., 2307 Bocks Lane, Baltimore, Md.; will erect plant to manufacture building brick together with sewer pipe, hollow block tile and all kinds of fireproofing clay products; plant will be completed first on unit basis, then manufacture for its additional construction, also build sewer pipe plant; both plants will cost approximately \$500,000.

Coal Mines and Coke Ovens

Ala., Birmingham—Neill Coal Co., capital \$20,000, incorporated with John C. Neill, Pres.; A. B. Neill, Sec.-Treas.

Ky., Paintville—Yellow Chief Collieries Co., capital \$25,000, incorporated by J. D. Meek, Paintville; Frederick E. Jones, Jackson, Ohio and others.

Ky., Sexton—Lawson Coal Co., incorporated by J. Frank Lawson, H. L. Lawson and others.

Ky., Sibert—Malva Coal Co., capital \$12,000, incorporated by T. Y. Marcum, Manchester, Ky.; W. R. Hughes, Barbourville, Ky., and others.

Tenn., Chattanooga—Big Brushy Coal Co., re-organized by R. J. Riddle, R. J. Riddle, Jr. and others; changed name from Bid Brushy Fuel Co.

Va., Pulaski—Big Vein Anthracite Collieries, Inc., Clyde E. Smith, Gen. Mgr., reported to have purchase holdings and mining operations of the Superior Anthracite Coal Corp. on Brush mountain; are installing new and modern equipment and erecting additional collieries.

Va., Tazewell—Pocahontas Corporation, chartered with F. Farrell, Pres., East Orange, N. J.; H. R. Hawthorne, Sec., New York City.

Cotton Compresses and Gins

Tex., Mission—Starr Gin Co., capital \$20,000, incorporated by Lee McKinney, L. H. Marcell and others.

Cottonseed-Oil Mills

Miss., Jackson—Buckeye Cotton Oil Mill will expend \$30,000 in improvements to mill.

Drainage and Irrigation

Fla., Tampa—Hillsborough County Board of Supervs. have adopted plans for draining the Dover Drainage Dist. comprising 11,339.05 acres located near Dover and Seffner, extending north through Lake Thonotosassa to Hillsborough River; estimated cost \$171,087.90.

S. C., Columbia—Tyrrell County Drainage Dist. No. 1, J. G. Brickhouse, Chmn., receives bids until Nov. 24 for drainage improvements, work includes cleaning out 7800 ft. of old canal, containing approximately 12,753 cu. yds., also digging new canal, 4030 ft. long, containing approximately 6518 cu. yds. and clear about 2 mi. right of way; Will D. Alexander, Engr., Charlotte, N. C.

Electric Light and Power Plants

Fla., Miami—Details under Land Developments.

Fla., St. Petersburg—West Central Association, 11 Fifth St. N., will open bids in about 30 days for construction of 7 miles of white way system. (Lately noted.)

Ga., Ray City—Details under Water Works.

Ky., Madisonville—Kentucky Utilities Co., L. B. Harrington, Pres. Louisville, Ky. and Central Illinois Public Service Co., are planning to extend transmission line and connect lines at Morganfield.

Md., Fairfield—Details under Miscellaneous Enterprises.

Mo., Union Star—Briggs & McElroy of King City, Mo. has contract for construction of electric light system from Union Star to Bulla Corner.

N. C., Charlotte—Details under Land Developments.

N. C., Greensboro—Details under Land Developments.

N. C., Henderson—Chamber of Commerce approved plans for white way on Garnett St., extending from Horner to Young Sts.

S. C., Aiken—E. C. Lowe, D. M. George and others interested in white way system on Park Ave. and Hayne Ave.

S. C., Greenville—Laurens Road Light & Power Co., incorporated with W. P. Conyers, Pres.; James M. Richardson, Sec.

Tenn., Lawrenceburg—City, E. P. Nixon,

Supt., will install hydro-electric plant; let contract to Jas. Leffell & Co., Springfield, Ohio, for water wheel 650 h. p., 39 ft. head; to General Electric Co., Schenectady, N. Y., for generator; Freeland, Roberts & Co., Engrs., Nashville, Tenn. (Lately noted.)

Tex., Dallas—Details under Land Developments.

Tex., Kaufman—Details under Road and Street Construction.

Fertilizer Plants

Md., Fairfield—Details under Miscellaneous Enterprises.

S. C., Sumter—Planters Fertilizer Co., capital \$40,000, incorporated with J. B. Britton, Pres.; J. P. Booth, Sec.-Treas.

Flour, Feed and Meal Mills

Mo., St. Louis—Arcady Farms Milling Co., capital \$160,000, incorporated with O. E. M. Keller, Pres.; H. A. Olendorf, Sec.

N. C., Raleigh—Hill Flour Mills, Inc., increased capital from \$300,000 to \$450,000; changed name from Hill Flour Mills Corp.

S. C., Greenwood—Sterling Flour and Grain Co., capital \$20,000, incorporated with E. W. Stainaker, Pres.; D. A. Woodward, Sec.

Tenn., Dyersburg—Ewell Grain Co., capital \$10,000, incorporated by M. W. Ewell, J. M. Davenport and others.

Foundry and Machine Plants

Ala., Decatur—H. and H. Machine Works, First Ave., contemplates purchasing new site and erecting plant, increasing capacity.

Ark., Fort Smith—Hammer Iron Works, Joseph Hammer, Pres., reported to erect plant, has acquired 55x150-ft. site corner South 6th and Parker Ave.

Ky., Louisville—Universal Car Co. increased capital from \$25,000 to \$100,000.

N. C., Wilmington—Details under Miscellaneous Enterprises.

Tenn., Knoxville—Dempster Construction Co. and the Dempster Equipment Co., reported to have acquired 14 acre site fronting on the Southern Railway; the engineering crew under the supervision of E. L. Trowbridge, Civil and Consrt. Engr. has begun survey for the location of side tracks, store houses, buildings, etc. for general equipment depot.

Tex., Kerrville—Redwine Machinery Co., capital \$40,000, incorporated with Chas. W. Rawson, Pres.; Cecil Robinson, Sec.-Treas.; will manufacture nut cracking and sorting machinery.

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Gas and Oil Enterprises

Ark., Stephens—Louisiana Oil and Refining Corp., of Shreveport, La., has acquired pipe line system, including 11 mi. gathering lines, 5000 bbls. steel storage and 10 car loading rack; contemplates constructing pipe line to the oil field.

Ky., Middlesboro—Canada Peak Oil Co., lately noted incorporated with \$25,000 capital, by F. S. Lee, P. O. Box 262, and others; has 4000 acre lease and will drill for oil and gas.

La., Monroe—J. M. Supply Co., capital \$60,000, incorporated with Fred Stovall, Pres.; L. S. Roberts, Sec.

La., Rayville—J. W. Billingsley Co. of New Orleans, La., has contract for making survey and estimating cost of project to pipe gas from Monroe gas fields to Rayville.

Okla., Oklahoma City—Kessler Oil Co., capital \$50,000, incorporated by Edward Speirs, P. Fisher and others.

Tex., Beaumont—Crater Oil Co., capital \$10,000, incorporated by L. G. Wilson, E. C. Carrington and others.

Tex., Houston—Deep Water Oil Refinery, capital \$1,000,000, incorporated by R. A. Fousts, E. A. Peden and others.

Tex., Point—Point Oil Co., capital \$100,000, incorporated by J. H. Southard, E. W. Thomas and others.

Tex., Port Arthur—Port Arthur Oil & Development Co., capital \$10,000, incorporated by R. C. Parsley, J. H. Tatum and others.

Tex., Waco—Waco Petroleum Co., lately noted incorporated with \$10,000 capital with E. E. Cammack, Sec., 111½ South 4th St., has leased 5000 acres and will drill 3 or more wells.

Ice and Cold-Storage Plants

Ala., Fairfield—City Ice Delivery Co., has begun construction of plant to be located on Commerce Ave., costing approximately \$150,000; with daily capacity of 60 tons; Warren, Knight & Davis, Archts.

Fla., Lake City—Geo. L. Colburn, Sec., Rotary Club of Lake City interested in the installation of cold storage plant, capacity of about 4 cars, to be used in pre-cooling truck shipments. (See Machinery Wanted—Cold Storage Plant.)

Fla., Pensacola—T. T. Todd let contract to J. W. Eley to erect cold storage plant on E. Zarragossa St., concrete construction.

Miss., Ruleville—Ruleville Ice & Coal Co., incorporated by Leroy Ray, W. B. Alexander, Jr., and others.

N. C., Hamlet—Hamlet Ice Co., T. M. Rose, Gen. Mgr., will enlarge the manufacturing and storage capacity of plant; will increase capital by \$100,000.

N. C., Winston-Salem—Crystal Ice Co., A. L. Butner, Mgr., has acquired 2 acre site on Waughtown St. to erect ice manufacturing and cold storage plant, will construct to accommodate a 60-ton unit but will operate at beginning a 20 ton plant; machinery all ordered and contract let; will also install 30-ton unit in their plant on Fourteenth St., increasing capacity to 60 tons daily.

Tenn., Memphis—Electric Ice Co., 430 N. Waldron St., will erect \$20,000 ice plant, brick and concrete construction; R. F. Howell, Contr.

Tenn., Tracy City—Civitan Club interested in having an ice plant and laundry established in city.

Tex., Robstown—Texas Central Power Co., has acquired the local light and ice plant heretofore operated by the Robstown Gin and Ice Co., will remodel and operate under the name of the Robstown Ice & Light Co.

Tex., San Antonio—Lone Star Ice Delivery Co., capital \$25,000, incorporated by J. E. Coggeshall, H. Roberts and others.

Va., Norfolk—McPherrin Ice Corp., capital \$100,000, incorporated with Robert A. McPherrin, Pres.; Aaron Levine, Sec.

Land Development

Ala., Birmingham—Jones Realty Co., incorporated by J. R. and A. Wynn Jones, and others.

Ala., Birmingham—North Side Building Co., incorporated by R. J. Strickland, J. R. Robinson and others.

D. C., Benning—P. O., Washington—Benning Development Co., capital \$100,000, incorporated by Alonzo O. Dille, Andrew D. Loffler, both Benning; Geo. W. Hess, Washington, D. C.

Florida—The Railroad Man's Country Club, Inc., has been organized largely by workers of the Chesapeake & Ohio R. R. with the following officers: J. S. Burdette, Pres., 604 Washington Ave., Huntington, W. Va.; C. B. Scott, V.-P., Ashland, Ky.; E. J. Bryan, Gen. Mgr., Jacksonville, Fla.; have acquired tract of 500 acres on Orange Lake, Marion County, Fla., located at Proctor, 18 miles north of Ocala property of E. H. Irvine; will develop into hunting preserves, golf links, bathing beaches in connection with development of bungalow colony, sanitarium, etc.

Fla., Gainesville—J. H. McNulty, Buffalo, N. Y.; Ernest T. Trigg, Chicago, Ill. and others interested in clearing of 250 acres of land at Paradise and the planting of tung oil trees which yield product used in the manufacture of paints.

Fla., Homestead—Allison's Nurseries, Inc., capital \$50,000, incorporated with H. Dove Allison, Pres.; B. Pauline Allison, Sec.

Fla., Miami—Miami Development Co., capital \$300,000, incorporated with P. A. Henderson, Pres.; J. P. Simmons, Sec.-Treas.

Fla., Miami—New England Securities Co., offices 144 E. Flager St., organized with \$50,000 capital by Frank E. Ballard, M. R. Bennett; has acquired 100 acres adjoining Coral Gables and will develop for subdivision; will install water, electricity, sewers, roads and streets, etc.; present plans of development consist of cleaning the land, planting citrus groves, etc.

Fla., Miami—Carl G. Fisher approved expenditure of \$11,000 on construction of one of the holes of the proposed 18-hole golf course for Miami Beach, located north of Surprise Waterway; length of course 6150 yards.

Fla., Bagdad—Bagdad Land & Lumber Co. will develop 125 acres of land in Satsumas.

Fla., Stuart—Brown & Co., Portland, Me., acquired 2000 acres of land will develop for peanut culture. (Previously noted to purchase and develop 75,000 acres in Palm Beach County.)

Ga., Savannah—J. Clark Rowland Co., Inc., chartered by J. Clark Rowland, Geo. L. Cope and others.

La., Monroe—Millsaps Realty Co., capital \$110,000, incorporated by P. M. Atkins, G. G. Weak, and others.

La., New Orleans—Audubon Park Comsn. had applied for appropriation to develop 25 acres of land in Audubon Park; will extend drive, drain portion of land, plant trees, etc.

Miss., Canton—Canton Country Club, capital \$30,000, site on Canton-Carthage highway and will establish golf course and lake.

Mo., Cape Girardeau—Pioneer Orchards Co., lately noted incorporated with \$10,000, organized with Theo. Ochs, Pres.; Henry A. Ochs, Treas.; has acquired 120 acres near

Cape Girardeau and will erect packing plant and dwelling.

Mo., Kirkwood—Country Acreage Co., incorporated by Joseph Coulter, J. R. Thrusby and others.

Mo., St. Louis—Zoological Board of Control let contract to John Hill Construction Co. at \$151,760 to construct monkey house in Forest Park.

Mo., St. Louis—Soulway Realty Co., increased capital from \$20,000 to \$50,000.

N. C., Asheville—Haywood Realty Co., increased capital from \$100,000 to \$500,000.

N. C., Blantyre—Woodlake Park Development, capital \$50,000, incorporated by Chas. F. Baldwin, Joseph A. Simpson and others.

N. C., Charlotte—J. H. Carson Co. is developing 15 acre tract on S. Mint St. will erect 25 dwellings; install water, lights, sewers, etc.

N. C., Chimney Rock—Chimney Rock Mountains, capital \$12,005,000, by M. O. Dickerson, Jr., of Rutherfordton, N. C.; E. O. Thomas of Forest City, N. C. and others; will establish hydro-electric power plant and develop resort. (Lately noted to develop 6500 acres for mountain resort; construct lake, erect hotels, club house, golf links, maintain fish hatchery, etc.; initial expenditure \$4,000,000.)

N. C., Greensboro—A. K. Moore of A. K. Moore Realty Co. has acquired 216 acres on the Friendly Road and will develop for subdivision; will install water, sewer, lights, construct streets, etc.

S. C., Columbia—United Development Co., capital \$100,000, incorporated by R. L. Hollowell, H. N. Edmunds and others.

Tenn., Knoxville—Unepoint Developing Co., capital \$25,000, incorporated by J. G. Bye, W. C. Rector and others.

Tex., Dallas—Park Board accepted proposal of North Texas Trust Co. for development of 73 acres in northwestern section of Oak Cliff for park; will expend about \$30,000 in improvements, including extension of city sewer system, water works, electric lights, building of 9 hole golf course; lay curbs, gutters, pavements, paving of 40 ft. roadway with macadam, etc.

Tex., Fort Worth—McMullen Co., capital \$20,000, incorporated by T. N. McMullen W. M. Short and others.

Tex., Houston—John W. Beall and associates will develop 100 acre tract adjoining Houston Heights as Shadyside a suburban homesite; will build streets, etc.

Tex., Littlefield—John B. Moore and J. W. Hokanson have acquired 1200 acres of land and will improve.

Tex., Port Arthur—Details under Road and Street Construction.

Va., Bristol—Rainero Bros. has acquired 50 acres in South Bristol and will develop for park and playground; will erect swimming pool, dancing pavilion, construct walks and driveways, etc.

Va., Norfolk—Lynbrook Corp., capital \$35,000, chartered with W. T. Old, Pres.; J. W. Old, Jr., Sec.

Va., Norfolk—Seashore Development Co., capital \$50,000, incorporated with Perry W. Ruth, Pres.; J. A. Dearing, Sec.

Va., Norfolk—Ulman Realty Corp., capital \$50,000, chartered with S. J. Ulman, Pres.; S. Ulman, Sec.

Va., Suffolk—Norfolk-Suffolk Farms Corp., capital \$25,000, incorporated with H. W. Lewis, Pres., Jackson, N. C.; H. Stuart Lewis, Sec., Suffolk.

W. Va., Charleston—Standard Realty Co.,

capital \$25,000, incorporated by M. C. Clark, E. H. Graves and others.

W. Va., Charleston—Details under Road and Street Construction.

W. Va., Clarksburg—Anti-Cant Realty Co., incorporated by D. H. Kyle, A. J. Green and others.

W. Va., Inwood—Fruit Growers Club, incorporated by L. F. Wilson, E. F. McDonald and others.

Lumber Enterprises

Ala., Birmingham—Morgan Lumber Co., capital \$50,000, incorporated by Fred J. Stone, Jos. Fres and others.

Ala., Kimbrough—Kimbrough Mill and Lumber Co., capital \$100,000, incorporated by F. W. Silverthorne, of Kimbrough; H. G. Able, Whatley, Ala. and others.

Ala., Gadsden—Southern Manufacturing Co., Gardner and Tenth Sts. will add milling plant to its lumber finishing mills, requiring additional building and equipment.

Ala., Wagar—McClure Pine Co., organized with N. D. McClure, Pres., Mobile Ala.; E. O. McClure, Sec.-Treas., Wagar; incorporated from partnership. (Lately noted.)

Ark., Wesson—Edgar Lumber Co., G. R. Gammill, Mgr., will rebuild lumber mill, burned at loss of \$150,000.

Ga., Barnesville—Barnesville Planing Mill Co. plans establishing small plant with planer and dry kiln at another location; installing planer and matcher, engines; boilers; self feed rip saw; lumber trimmers; pulleys and shafting, dry kiln equipment, etc. (See Machinery Wanted—Planing Mill Equipment; Engines; Boilers; Dry Kiln Equipment; Rails (Steel); Trucks (Lumber); Pulleys and Shafting.)

Miss., Laurel—Laurel Hardwood Lumber Co., increased capital from \$30,000 to \$50,000.

N. C., Elkin—Roswell Lumber Co. (lately noted incorporated, capital \$49,000) organized with A. O. Bryan, Sec.-Treas.; R. S. Cheves, Sales Mgr.; will first manufacture rough lumber, later will build planing mill and flooring plant.

Tenn., Chattanooga—Blair Lumber Co., increased capital from \$100,000 to \$150,000.

Tex., Colorado—Berry-Fee Lumber Co., capital \$25,000, incorporated by J. T. Berry, C. H. Fee and others.

Mining

Fla., Leesburg—Florida China Clay Co. Inc., Box 83, incorporated by J. S. Morris, Pres.-Mgr.; L. A. Morris, Sec.-Treas and Const. Engr.; has 1000 acres under development, daily output 50 tons; address machinery proposals to the Company.

N. C., Elk Mountain—Sand—Campbell-Coxe Co., Box 1322, Asheville, N. C. (lately noted incorporated, capital \$50,000) organized with S. L. Forbes, Pres.; C. W. Campbell, Treas.-Mgr.; contemplates installing additional 8-in. centrifugal sand dredge, overhead bins, pipe line, etc. (See Machinery Wanted—Sand Dredging Equipment.)

Oklahoma—Eagle-Picher Lead Co., general office, 208 LaSalle St., Chicago, Ill. reported to have acquired 520 acres mining land in the Oklahoma-Kansas section of the field from the Ontario Smelting Co., transaction also includes the acquisition of a long time lease on the Ontario company's lead smelter at Hockerville, Okla.

Tenn., Columbia—Consolidated Phosphate Co., John W. Fry, Sec.-Mgr., Maury National Bank Bldg., will attach to present operations a treating plant for making phosphate rock available under the A. L. Kreiss process; will begin about January 1, 1924.

Miscellaneous Construction

Ala., Birmingham—Incinerators—Irwin S. Osborn, Conslt. Engr., has recommended the erection of three incinerator plants and purchase of new collection equipment; estimated cost \$500,000.

Ark., Camden—Storage Tanks. Details under Railway Shops, Terminal, Roundhouses, etc.

Ark., Pine Bluff—Levee—Tucker Lake Reclamation Dist. Commrs., will build new levees and raise present levee to protect about 35,000 acres along the river above the free bridge; will sell \$60,000 bonds.

Fla., Fort Lauderdale—Details under Water Works.

Fla., Miami—Jetties—Bakers Haulover Dist. Commrs., J. C. Baile, Chrmn., Box 443, will receive b'ds until Dec. 12 to construct jetties in connection with channel work between Biscayne Bay and Atlantic Ocean. (Lately noted.)

La., New Orleans—Board of Commrs., N. B. Rhoads, Purchasing Agt., 1 Canal St., let contract to Mallu Sheet Metal Works, New Orleans, for sheet metal work and glazing on 400 ft. of new wharf shed; Samuel Young, Chief Engr.

La., New Orleans—Levee—Board of State Engrs., Room 213, New Orleans Court Bldg. will receive bids Nov. 22 to construct Austin levee, in Pointe Coupee Parish left bank Atchafalaya river; approximate quantities are 80,000 cu. yds.; Frank M. Kerr, Chief State Engr.

Md., Baltimore—Piers—Western Maryland Ry. Co., H. R. Pratt, Chf. Engr., submitted new plans to the Port Comsn. for development of part of city's McComas Street property. (Lately noted.)

Miss., Vicksburg—Seawall—Robert Cornell, has received sub-contract for work on new seawall; Jefferson Construction Co. has main contract as lately noted.

Mo., Waverly—River Bank Protection—State Highway Dept., Capitol Bldg., Jefferson City, Mo., Federal and State Aid, Project 220, Carroll and Lafayette Counties, let contract to Woods Brothers Construction Co., Lincoln, Neb., at \$75,600 to construct Missouri River bank protection in connection with bridge over Missouri River; work includes series of current retards, consisting of trees laid in river bed and anchored to concrete piling driven to rocks and to the bank; 5 retards, 150 ft. long and 3 retards 200 ft. long.

Tex., Port Arthur—Incinerator, Breakwater, etc.—Details under Road and Street Construction.

Va., Bristol—Swimming Pool—Details under Land Developments.

Miscellaneous Enterprises

Ala., Birmingham—Birmingham Cone Co., capital \$15,000, incorporated by Wesley W. Westmoreland, Wm. A. Johnson and others.

Ala., Birmingham—Sparks Barber Supply & Perfumery Co., capital \$10,000, incorporated by C. C. Sparks, R. Walter Collins and others.

Ala., Birmingham—Bessemer Galvanizing Co., incorporated by H. L. Badhen, A. J. Dyer and others.

Ala., Birmingham—Birmingham Stadium Assn., incorporated by Victor Hanson, W. H. Stockham and others.

Ala., Birmingham—Glen Iris Dairy Holding Co., No. 2, incorporated by A. L. Cook, B. M. Holcomb and others.

Ala., Birmingham—Two Vest Sign Co., incorporated by T. F. and Bernie R. Vest and others.

Ala., Leeds—Jefferson Hardware & Manufacturing Co., incorporated by H. M. Judge, F. E. Davis and others.

Ala., Troy—Hardware—Company incorporated with \$20,000 capital by Jim Tom Brantley and others; have acquired plant of J. T. Wood and Son.

Ark., Forrest City—M. D. Zuber, R. T. Simmons and S. Bailey will organize company, and establish plant to manufacture concentrated lime-sulphur solution to spray trees; will have offices in both Memphis, Tenn. and Little Rock, Ark.

Ark., Fort Smith—Fort Smith Sorghum Co., incorporated with P. L. Saenger, Pres., Waukegan, Ill.; J. A. Shibley, Sec.-Treas., Fort Smith; has acquired plant and equipment of Best-Clymer Co., will operate.

Fla., Daytona—Daytona Beach Amusement Co., Harvey D. Fleck, Pres., has 50 acres land, 20 acres of which will be developed for amusement park and 30 acres for bungalow colony.

Fla., Fort Myers—Florida Railroad & Navigation Co., Barron G. Collier, Pres., New York; R. A. Henderson, Sec. and Harry Botts, Mgr., both Fort Myers; reported to have taken over the Fort Myers Steamship Co. and will organize a new boat line between St. Petersburg, Tampa, Fort Meyers, Key West and Miami.

Fla., Homestead—Hardee & Gentile let contract to J. W. Conner to erect 50x100-ft. packing house, 40 ft. of space will be used for ripening room.

Fla., Miami—H. F. Lambert Construction Co., capital \$10,000, incorporated with L. B. Boyd, Pres.; H. L. Lambert, Sec.-Treas.

Ga., Arlington—B. A. Garrett will develop poultry, dairy and livestock farm, R. E. Taylor, Mgr.; also contemplates establishing swimming and fishing resort, erect hotel, etc.

Ga., Bainbridge—Decatur County Hatchery, J. C. Lane, V. P.; will rent building to establish hatchery, has purchased 7 Buckeye Mammoth incubator; may erect building later. (Lately noted.)

Ga., Columbus—Wilde Hardware Co., capital \$20,000, incorporated by W. Lawrence Wilde, W. Lawrence Wilde, Jr. and others.

Ga., Sparta—Miller Hardware Co., incorporated by E. G. Miller and D. F. Miller, successors to the Hatcher-Miller Hardware Co.

Ky., Ashland—Clyffside Wet Wash Laundry Co., increased capital from \$5000 to \$25,000.

Ky., Bowling Green—Win-Hal Hatchery, capital \$25,000, incorporated by Walter A. French, H. Lee Kelley and others.

Ky., Frankford—Ideal Pattern & Manufacturing Co., capital \$10,000, incorporated by

Ky., Greenville—Red Cross Bus Co., incorporated by Roy Smith, Greenville; R. O. Nichols, Central City, Ky. and others.

Ky., Louisville—L. Jacobson & Son, capital \$25,000, incorporated by Louis Jacobson, Ben P. Jacobson and others.

Ky., Louisville—Oil-O-Matic Heating Co., incorporated by Curtis C. Webb, Edward J. Lasson and others.

Ky., Louisville—Louisville Loose Leaf To-Let Co., Sandmann, Albert Hurley and others. bacco Warehouse Co., capital \$50,000, incorporated by A. L. Powers, R. M. Beatty and others.

Ky., Louisville—Standard Sanitary Co., Theodore E. Mueller, Mgr., Pittsburgh, Pa., reported to erect \$1,500,000 factory to manufacture brass plumbing fixtures; brick and steel construction; in addition to proposed structure will erect 3-story office building

containing recreation rooms and hall with seating capacity of about 2000.

Ky., Louisville—Henry Fisher Packing Co., capital \$25,000, incorporated by Henry Fisher, John L. Alliger and others.

Ky., Richmond—Blakeman, Roberts and Oldham, capital \$10,000, incorporated by Rufus Blakeman, Benton Roberts, and others.

Ky., Sardis—A. H. Dillon Co., capital \$25,000, incorporated by A. H. Dillon, I. H. Henderson and others.

La., Monroe—J. M. Supply Co., capital \$60,000, incorporated with Fred Stovall, Pres.; L. S. Robert, Sec.-Treas.

La., New Orleans—Consumers' Seltzer & Mineral Water Manufacturing Co., Toulouse St., has acquired site at 1018 N. Rampart St., 64x195 ft., also an additional property of 30x110 ft.; will erect plant, has plans.

Md., Baltimore—Rennous-Kleinle division of the Pittsburgh Plate Glass Co. will award contract this week for the construction of addition to plant on Frederick Ave., structure will be 4 story and basement, L shaped, 140x60-ft., brick and steel with slag roof, Barrett specification, steel sash; slow burning construction; providing about 50,000 sq. ft. additional floor space; Wight & Lockhart, Architects.

Md., Baltimore—Headley Chocolate Co., 15 S. Frederick St., and 608 Water St., R. E. Rodda, Pres., reported as having tentative plans to erect additional story on present building, also have under consideration purchasing of another structure or the building of an entirely new plant.

Md., Baltimore—Standard Sanitary Manufacturing Co., Theodore Ahrens, Pres., Pittsburgh, Pa. will probably let contracts soon for the erection of \$3,000,000 plant at 5th. Ave. and 17th. St., Canton; has acquired 48 acre site; will manufacture bath tubs and plumbing fixtures.

Md., Baltimore—Candy-Devoine Co., capital \$1,500,000, incorporated with Charles G. Guth, Pres.; Pratt and Concord Sts., have taken over business of the Devoin Candy Co., of New York.

Md., Baltimore—City Baking Co., let contract to John F. Kunkle, 29 S. Lenwood Ave., to erect 2 additions to plant at northeast corner of Calhoun and Winchester Sts., 49x142 ft. and 33x31 ft., respectively; brick, concrete foundations, slag roof, steam heat; estimated cost \$10,000.

Md., Branchville—Indian Creek Co., Inc. (lately noted incorporated, capital \$30,000) organized with Ralph H. Case, Pres.; T. Raymond Burch, Sec.-Gen. Mgr.; let contract to J. F. Robinson, 222 C. St., S. W. Washington, D. C., to erect 20x74-ft. fireproof, laundry building; has installed washers, extractors, dryers; invite prices on laundry supplies. (See Machinery Wanted—Laundry Supplies.)

Md., Fairfield—United States Industrial Chemical Co., let contract to Research Corporation to erect 15x24x15 ft. electrical substation, concrete construction.

Md., Jessups—Peerless Food Products Co., Philip Peterson, Pres., will enlarge plant; manufacturers pure food product known as Pekto; increased capital to \$25,000.

Miss., Hazelhurst—Dairy—R. O. Catching of Georgetown, Miss., has acquired site, will establish dairy farm.

Miss., Kosciusko—W. C. Leonard & Co., capital \$30,000, incorporated by W. C. Leonard, J. C. Maxwell and others.

Mo., Chillicothe—F. B. Norman of Norman Funeral Home let contract to Bradbury & Maxwell, Chillicothe, for erection of funeral home.

Mo., Kansas City—Oriental Laboratories

Corp., capital \$10,000, chartered by Floyd L. Bean, Lytell H. Carver and others.

Mo., St. Louis—Renard & Henley, Inc., capital \$22,000, incorporated by A. H. Renard Chas. C. Henley and others.

Mo., St. Louis—Peerless Plaster & Manufacturing Co., capital \$10,000, incorporated by Gordon Willis, Ernst Schell and others.

Mo., St. Louis—West-Nelson Manufacturing Co., capital \$21,000, incorporated with O. D. West, Pres.; R. A. Nelson, Sec.

Mo., St. Louis—National Cover & Manufacturing Co., capital \$70,000, incorporated by Geo. Duebelbeis, 3508 Commonwealth Ave., Maplewood, Mo.; E. W. Petzold, 3919 Kennerly Ave., St. Louis.

Mo., St. Louis—Mor-Lite Kno-Glair Co., capital \$25,000, incorporated by J. O. Mack, G. H. Lawrence and others.

N. C., Biltmore—City, Julian Kitchen, Mayor, will purchase fire fighting apparatus.

N. C., Canover—Warlong Glove Co., C. R. Brady and A. L. Shuford, owners, will erect \$12,000 factory to replace present frame building; 2 stories; brick and steel; 40x105 ft.; monitor style roof, Barrett specifications.

N. C., Charlotte—Carolina Baking Co., increased capital from \$125,000 to \$250,000.

N. C., Charlotte—Icy-O-Metal Products Co., capital \$300,000, incorporated by Marcus Bloom, W. W. Blount and others.

N. C., Concord—Dr. G. B. Sturgeon Remedy Co., capital \$50,000, incorporated by Geo. B. Sturgeon, R. B. Craven and others.

N. C., Franklin—Macon County Farmers Federation, Inc., capital \$100,000, incorporated by Alex Moore, W. A. Rogers and others.

N. C., Gastonia—Gastonia Battery Co., capital \$25,000, incorporated by J. T. Palmer, C. C. Johnson and others.

N. C., Greensboro—El Fulto Cigar Co., capital \$100,000, incorporated by J. S. Fulton of Greensboro; T. W. Smith, Charlotte, N. C. and others.

N. C., Greensboro—North Carolina Legion Publishing Co., capital \$25,000, incorporated by J. N. Caldwell, Albemarle, N. C.; Henry L. Stevens, Warsaw, N. C.; R. M. Horsbrough, Fayetteville, N. C.

N. C., Hickory—Hickory Paper Box Co. has acquired site and will erect larger plant.

N. C., High Point—E. and S. Mills, capital \$100,000, incorporated by W. F. Ellis, Jr., E. C. Robins and others.

N. C., King—Warehouse Co., capital \$50,000, incorporated by V. F. Grabbs, R. S. Heisback and others.

N. C., Lillington—Byrd Bros. & Shaw, capital \$50,000, incorporated by J. C. Byrd, of Bunnlevel, J. M. Shaw of Lillington and others.

N. C., Murphy—Regal Blue Marble Co. will erect addition to plant at Regal, will install additional machinery.

N. C., North Wilkesboro—C. C. Smoot & Son, let contract to Kester Machinery Co. of Winston Salem, N. C. for installation of a 500 h.p. steam plant, increasing boiler capacity to 2000 h.p.

N. C., Pates—Pates Supply Co. increased capital from \$50,000 to \$100,000.

N. C., Pembroke—Pembroke Trading Co., capital \$50,000, incorporated by C. T. Pate, Purvis, N. C.; R. H. Livermore of Pates, N. C. and N. H. Biddell, of Pembroke.

N. C., Salisbury—Piedmont Bonded Warehouse Co., capital \$100,000, incorporated by R. A. Goodman, A. L. Klutz and others.

N. C., Southern Pines—Henry Silver, interested in establishing restaurant, interested

in prices in supplies, etc. (See Machinery Wanted—Hotel and Restaurant Supplies.)

N. C., Statesville—Wood Construction Co., capital \$100,000, incorporated with C. A. Stearns, Pres.; S. L. Miller, Sec.-Treas.

N. C., Wilmington—Thomas B. Hayes of Fisheries Products Co., acquired Carolina Shipyards and will install machine shop for repair of company's fleet of fishing steamers.

Okla., Oklahoma City—B. H. Hunter Co., capital \$10,000, incorporated by A. E. Beatty, B. H. Hunter and others.

Okla., Ponca City—H. G. Gill will erect funeral home at Second and Cleveland Sts.

Okla., Tulsa—Brickner-Garbett Construction Co., capital \$25,000, incorporated by F. R. Currier, James Garbett and others.

S. C., Conway—Cooper Graham Co., capital \$20,000, incorporated with T. B. Cooper, Jr., Pres.; G. C. Graham, Sec.

Tenn., Chattanooga—Paul M. Logue, Buffalo, N. Y., reported to establish dye making plant; about \$150,000 to be expended.

Tenn., Chattanooga—Ideal Clothing Manufacturing Co., capital \$50,000, incorporated by John W. Red, Francis C. Smith and others.

Tenn., Harriman—A. R. Davis interested in establishment of canning factory. (See Machinery Wanted—Canning Plant Machinery.)

Tenn., Jackson—The Globe, capital \$10,000, incorporated by J. H. Dodds, Wm. Blackburn and others.

Tenn., Johnson City—Hannah-Dorsey Co., increased capital from \$50,000 to \$150,000; changed name from C. G. Hannah Co.

Tenn., Memphis—City Plumbing & Heating Co., 93 N. 3rd St., capital \$15,000, incorporated by W. W. Wood, A. B. Lanning and others.

Tenn., Memphis—Automotive Transfer Co., 198 Jefferson Ave., capital \$10,000, incorporated by D. T. Miller, H. C. Homrighous.

Tenn., Memphis—American Publishing Co., Front and Monroe Sts., capital \$1,000,000, incorporated by R. H. Causy, G. M. Thompson and others.

Tenn., Memphis—L. G. Johnson Building Co., 1414 Central Bank Bldg., capital \$10,000, incorporated by L. G. Johnson, H. D. Felts and others.

Tenn., Tracy City—Details under Ice & Cold Storage Plants.

Tex., Austin—Austin Ice Cream Co., is having plans prepared by Edwin C. Kreisle, Archt., 806 Scarborough Bldg., Houston, Tex., to remodel building, to include new vault, extending reinforced concrete loading platform, etc.

Tex., Dallas—Dines Building Co., capital \$25,000, incorporated by Albert Dines, Lee R. Craft and others.

Tex., Dallas—H. L. Mittenthal Shoe Co., capital \$10,000, incorporated by H. L. Mittenthal, Ben, L. Berwald and others.

Tex., Marshall—East Texas Public Service Co., capital \$25,000, incorporated by James C. Kennedy, Knox Lee and others.

Tex., Marshall—A. M. Leary, of Shreveport, La., and associates interested in development of Rosborough Springs property for health and recreational centre.

Tex., Paris—Condray Candy Co., incorporated by J. E. Condray, Edwin White and others.

Tex., San Antonio—Hercules Patch Co., incorporated by G. Gass, W. J. Brian and others.

Tex., San Antonio—Undertakers—Sloan-Wibert and Pelphrey, capital \$20,000, incorporated by J. E. Sloan, Jacob Wibert and others.

Tex., San Marcos—Farmers Dairy Products Co., lately noted incorporated, J. F. Ivey, Mgr., has building and will install 6 ton refrigerating plant.

Tex., Schulenburg—Southern Produce Co., incorporated by J. O. Boettcher, Dave Stahle and others.

Tex., Seymour—Medicines—Dr. Barbe's Co., capital \$17,500, incorporated by Walter Jackson, John A. Weeks and others.

Va., Clarendon—Lyon & Fitch, Inc., chartered with Frank Lyon, Pres.; Chas. W. Smith, Sec.

Va., Danville—Sherwood Cafeteria, Inc., chartered with A. M. Aiken, Pres.; E. P. Crider, Sec.

Va., Lynchburg—Old Dominion Garment Co. increased capital to \$750,000.

Va., Martinsville—C. W. Holt & Co., capital \$50,000, incorporated with C. W. Holt, Pres.; Mrs. I. M. Greves, Jr., Sec.

Va., Newport News—Cunningham Construction Corp., capital \$50,000, chartered with R. R. Cunningham, Pres.; W. A. Krophgan, Sec.

Va., Norfolk—Norfolk Building Block Corp., capital \$95,000, chartered with Robin L. Marquart, Pres., Norfolk; Chas. C. Sphar, Sec., New York.

Va., Norfolk—Ocean Building Corp., capital \$25,000, chartered with Nathan L. Bennett, Pres.; T. L. Vaughan, Sec.

Va., Norfolk—Hopkins Co., Inc., capital \$125,000, incorporated with F. H. Hopkins, Pres.; M. L. Ball, Sec.

Va., Norfolk—Meyers & Tabakin, capital \$10,000, incorporated with Peter Meyers, Pres.; Louis Tabakin, Sec.

Va., Norfolk—Beach Hotel Corp., capital \$50,000, incorporated with Henry Kirn, Pres.; W. H. Sterling, Jr., Sec.

Va., Petersburg—Peerless Manufacturing Co., lately noted incorporated with \$25,000 capital, organized with N. W. Shefferman, Pres.; Chas. B. Mills, Mgr., will erect plant for the manufacture of mechanical pencils; 130x90 ft.; fireproof; cost \$30,000; Philip N. Stern, Archt., Fredericksburg.

Va., Richmond—American Tobacco Co., 111 Fifth Ave., New York, acquired all of the domestic manufacturing business of the Tobacco Products Corp., main office, 44 W. 18th St., New York; included in companies are the following: Falk Tobacco Co.; M. Melachrino Co.; Schinasi Brothers, Inc.; Surburg Co.; Nestor Gianaclis Co.; Khedival Co.; Prudential Tobacco Co.; and John J. Bagley & Co.

Va., Richmond—Russell S. Myers Co., capital \$10,000, incorporated with Russell S. Myers, Pres.; Ruby J. Harper, Sec.

Va., Richmond—Christo Syrup Co., capital \$10,000, incorporated with Fred F. Braswell, Pres.; Hampton Fleming, Sec.

Va., Richmond—Acme White Lead & Color Works, capital \$10,000, incorporated with M. W. Neal, Pres.; A. M. Woodward, Sec., both of Detroit, Mich.

Va., Richmond—National Transfer Co., capital \$50,000, incorporated with W. Fred Richardson, Pres.; W. M. Smithers, Sec.

Va., Suffolk—H. West, Inc., capital \$25,000, incorporated with W. B. Allen, Pres.; Herbert West, Sec.

W. Va., Buckhannon—Buckhannon Specialty Co., incorporated by Ben. L. Beall, C. R. Byrne and others.

W. Va., Charleston—Glenelk Corp., capital \$50,000, chartered by F. C. Gaylord, J. W. Williams and others.

W. Va., Clarksburg—Undertaking—Clifford

Queen, Inc., chartered by H. T. Wilson, W. E. Smith and others.

W. Va., Dunbar—Carrier Chemical Co., Charleston, W. Va., capital \$150,000, incorporated with M. T. Davis, Jr., Pres.; Arch Kreig, Sec.; company has acquired 7½ acres land and will erect plant to manufacture magnesia; estimated cost \$50,000.

W. Va., Huntington—Red Cab Co., capital \$50,000, incorporated by J. L. Miller, Dave Gideon and others.

W. Va., Logan—Lewis Cafeteria, capital \$20,000, incorporated by Geo. P. Lewis, B. H. Taylor and others.

W. Va., Weston—Lewis County Glass Co., capital \$25,000, incorporated by Ray C. Lorenz, Wm. Webber and others.

W. Va., Wheeling—Family Wash Laundry, increased capital from \$25,000 to \$75,000.

Motor Cars, Garages, Tires, Etc.

Ala., Montgomery—Hub Reynolds Motor Car Co., will occupy new building corner Montgomery and Catoma Sts.; to be erected by Louis B. Whitfield, 2 story, 100x100 ft., brick construction.

Ala., Selma—Breden & Cater Motor Car Co., incorporated by Geo. L. Breden, Jr., Frank Carter and others.

Ark., Ashdown—Filling Station—W. C. Smith of Foreman, Ark. and L. D. Smith, Dierks, Ark., will erect drive in filling station; L. D. Smith, in charge.

Fla., Jacksonville—Garage—C. D. Rinehart let contract to Gerbach & Haugard to erect 3 story concrete garage building on Julia St., estimated cost \$18,000.

Ga., Augusta—Motor Tire & Supply Co., capital \$10,000, incorporated by Alonzo P. and Hollis C. Boardman and others.

Ky., Covington—True Blue Auto Service Co., capital \$10,000, incorporated by J. A. Trooper, E. E. Ochs and others.

Ky., Glasgow—Dickinson Brothers Motor Co., increased capital to \$100,000.

Ky., Paducah—Moore Motor Co., capital \$100,000, incorporated by Edgar C. Moore, Brady M. Stewart and others.

La., Baton Rouge—Cadillac-Nash Sales Co., capital \$20,000, incorporated with I. F. Hart, Pres.; A. Higginbotham, Sec.-Treas.

La., New Orleans—Garage—Checker Cab Co., Inc., Joseph Bustes, Pres., has acquired site on Poydras St., having 25,000 sq. ft. of space, will erect garage building.

Md., Baltimore—Garage—George Klein will erect 1 story brick garage building in rear of 4115 Park Heights Ave.; structure will be 38 x 140 x 11-ft. and contain 28 compartments; estimated cost \$12,000.

Md., Easton—Delaware Nash Motors Co., capital \$25,000, incorporated by E. McNeal and W. B. Shannahan.

Mo., Clayton—Hudson-Roberts Motor Co., 25 S. Meramec St., (lately noted incorporated, capital \$50,000), organized with W. S. Roberts, Pres.-Treas.; has 75x160 ft. building.

Mo., Jefferson City—Motor Supply Co., capital \$20,000, incorporated by G. W. Carver, C. W. Rogers and others.

N. C., Asheville—Dodge U Drivem, capital \$15,000, incorporated by C. M. Fortune, J. B. Hooks, Jr. and others.

N. C., Charlotte—Pyramid Motor Co., Fred Anderson, Pres., will erect 3 story automobile plant at E. Trade and Davidson St. having approximately 80,000 sq. ft. floor space, fireproof construction, estimated cost \$125,000.

N. C., Durham—Pridgen Motor Co., capital

\$100,000, incorporated by J. D. Pridgen, Jr., A. L. Jones and others.

N. C., North Wilkesboro—Hemphill Motor Co., capital \$50,000, incorporated by E. L. Hemphill, C. S. Coffey and others.

Okla., Miami—Frank Staton will erect 5 story garage and office building.

S. C., Rock Hill—Automobile Accessories—G. H. Greene has acquired site, will probably erect automobile sales and accessories building.

Tenn., Memphis—Automotive Specialties Co., capital \$30,000, incorporated by P. L. Mitchell and H. L. McPaerson.

Tex., Bartlett—Miller Motor Co., let contract to W. A. Hatch, of Bartlett at \$20,000 to erect 1 story, 50 x 150-ft. fireproof, garage building.

Tex., Farwell—Farwell Auto Co., (lately noted incorporated, capital \$10,000), organized with D. C. Houk, Pres., let contract to J. B. Anderson to erect fireproof building, \$12,000; equipment installed.

Tex., Houston—Willys-Overland Sales Co., capital \$50,000, incorporated by John W. Kirby, Geo. W. Collier and others.

Tex., Houston—Tri-State Auto Painting & Enameling Co., incorporated by J. J. Fourmace, W. G. Wilbern.

Tex., San Antonio—Garage—Roth Brothers will erect garage building. Ed. W. Oeffinger, lowest bidder at \$34,718; Herbert S. Green, Archt.

W. Va., Huntington—Interurban Motor Co., capital \$25,000, incorporated by W. M. Parker, Fred Fritz and others.

W. Va., Williamson—Universal Motor Corp., J. H. Shaheen (lately noted incorporated, capital \$50,000) let contract to W. E. Preston to erect \$25,000 garage building; install complete garage equipment, bids open; Good Construction Co., Archt. (See Machinery Wanted—Garage Equipment.)

Railways

Mo., Kansas City—Kansas City & Grandview Railway Co. will build line about 14 mi. long from Leeds, Mo., a suburb of Kansas City, to Grandview Mo., to become a link in main line of Kansas City Southern that now operates between those points over a Frisco branch. Estimated cost about \$1,800,000. James Walsh of Kansas City is president. Contracts not yet awarded. Construction will be heavy.

Railway Shops, Terminals, Round-houses, Etc.

Ark., Camden—St. Louis Southwestern Ry. Co., W. S. Hanley, Chf. Engr., Tyler, Tex. reported to have acquired 100 acre site and will erect large storage tanks for fuel oil making it a fuel base for the entire system; storage will probably consist of ten 55,000 bbl. or seven 74,000 bbl. capacity tanks, that with other necessities will cost approximately \$200,000; work to begin this month.

Road and Street Construction

Ala., Anniston—State Highway Comm., Montgomery, Ala., received low bid from Morgan-Hill Paving Co., Birmingham, at \$30,386.42 for .77 mi. concrete base, bituminous top road in Calhoun County, being part of road between Anniston and Camp McClellan.

Ala., Eufaula—Hinton Hollemon Post, American Legion, interested in paving Broad St. from depot to band stand.

Ala., Montgomery—City will receive bids until Nov. 27 to improve 3 streets as follows: Pave roadway S. McDonough St., from Washington to South; Adams from Court to

Houston; both asphalt, bitulithic, concrete, vibrolithic concrete, asphaltic concrete, Kentucky rock asphalt, emulsified asphalt, tarvia double seal, rawhide, or Willite process; grade, lay granite curb and gutters, install storm and surface sewers, brick walls, etc., on 2nd St. from Forest Ave. to Mulberry St.; plans, etc., from W. A. Cone, City Engr.

Ark., Little Rock—City let contract to Gregory & Wilson, Stuttgart, Ark., to pave Hillcrest St. with asphalt on concrete base; \$82,500 bonds sold.

Ark., Little Rock—State Highway Dept., Little Rock, contemplates expending about \$3,300,000 to improve highways in Pulaski County.

Ark., Pine Bluff—E. W. Kimber, of Jefferson County Abstract Co., interested in paving 30 blocks with concrete, outside city limits, near Country Club road, including Cherry, 26th, 27th, 36th, 44th, etc.

Florida—State Road Dept., Tallahassee, will receive bids until Nov. 27 for 8 road projects as follows: Hard surface (plain cement concrete, asphaltic surface on rock base), including grading, surface and drainage structures; Nassau County, Project No. 521, Road No. 4, 12.42 mi.; No. 40-E, Brevard County, grade, construct drainage structures and lay rock base on 13.59 mi. Road No. 4; No. 604, Volusia County, grade, construct drainage structures and lay rock base on 7.72 mi. Road No. 4; Pasco County, 2 sections; 544-B, grade, construct drainage structures, and lay rock base on 11.32 mi. Road No. 5; 544, construct drainage structures and lay rock base on 8.75 mi. Road No. 5; No. 571, Madison County, grade, construct drainage structures and sand-clay surface 14.73 mi. Road No. 1; No. 576, Sarasota County, grade, construct drainage structures and lay rock base on 5.68 mi. Road No. 5; No. 605, Polk County, build 6-in. rock shoulders on 21 mi. Road No. 8; plans, etc., on file or from Div. Engrs.

Fla., Bartow—Polk County plans building 106 mi. 15-ft. asphalt road, and widening 9-ft. road to 15-ft.; will vote Dec. 15 on \$3,360,000 bonds. Address County Comr.

Fla., Bartow—Polk County will receive bids until Dec. 4 to furnish material and lay 96,000 sq. yds. paving; bituminous mattress, asphalt pavement on clay base, bituminous-concrete and cement-concrete; grade, curb, install drain pipes and head walls; also to build concrete steel bridge and about 160 cu. yds. reinforced concrete culverts, abutments, piers, footings, retaining walls, wings, bulkheads and timber plies; plans, etc., from J. D. Raulerson, Clk. Circuit Court; W. Lacy Boyd, Engr.-in-charge.

Fla., Fort Lauderdale—Details under Water Works.

Fla., Frostproof—City plans 9 mi. street paving, extending water mains, and erecting city hall; voted \$300,000 bonds. Address The Mayor.

Fla., Kissimmee—Osceola County let contracts at \$19,428.20 for improving road from Kenansville to Holopaw as follows:

Grubbing, to W. H. Mann; grading, to D. R. Kilpatrick; bridging and piling, to H. N. Bratton. Address County Comr.

Fla., Lakeland—City Comr., plan paving 23 mi. streets; Chas. C. Brown, City Engr.

Fla., Miami—Details under Land Developments.

Fla., Punta Gorda—Charlotte County will receive bids until Dec. 5 for 10.885 mi. Road No. 5; Project No. 564-A; plans, etc., from State Road Dept., Tallahassee, and Div. Engr., Lakeland, Fla.; J. T. Swinney, Chmn. Board County Comr.

Kentucky—State Highway Comm., Frank-

fort, will receive bids until Nov. 27 to grade, construct drainage structures, etc., on 2 road projects as follows: Madison-Rockcastle Counties, 10.898 mi. Berea-Roundstone road, from Berea to Roundstone Switch; State Project No. 5, Sec. B, Federal Aid Project No. 88; Knox County, 17.034 mi. Barbourville-Corbin road, from Barbourville to Corbin; State Project No. 5, Sec. D, Federal Aid Project No. 61, Sec. C; reinforced concrete, Type A, rock asphalt, or bituminous concrete, modified Topeka mix, on concrete base; Joe S. Boggs, State Highway Engr.

Kentucky—State Highway Comm., Frankfort, will receive bids until Dec. 10 for 4 roads as follows: Hart County, 1.696 mi. Buffalo-Hardyville road, from LaRue County line to end of Federal Aid Project No. 7, Sec. A, at Sand Hollow; creek gravel, waterbound macadam or waterbound macadam surface treated; State Project No. 3, Sec. A.; Larue County, 11 mi. Bardstown-Hodgenville road from Nelson County line to corporate limits of Hodgenville; creek gravel, waterbound macadam, or waterbound macadam surface treated; State Project No. 3, Sec. B; Harrison County, 10.7 mi. Georgetown-Cynthiana road, from Scott County line to city limits of Cynthiana, reshape, construct drainage structures and surface with waterbound macadam or surface treatment; State Project No. 58½, Sec. B; Garrard and Boyle Counties, 1.6 mi. Nicholasville-Danville road, from Marcellus to point approximately 400 ft. beyond Kentucky River; creek gravel, waterbound macadam, or waterbound macadam surface treated; State Project No. 25, Sec. A; Joe S. Boggs, State Highway Engr.

Kentucky—State Highway Comm., Frankfort, Ky., let contracts for 5 road projects as follows: Knox County, Federal Aid Project No. 61, Sec. B, grade and drain 2.6 mi. Barbourville-Corbin road, from end of Federal Aid Project No. 61, Sec. A to Federal Aid Project No. 39-A, to Costello Brothers, Knox County, at \$65,457.20; McLean County, State Project No. 10-A, widen and gravel surface 5.8 mi. Calhoun-Owensboro road, from corporate limits of Calhoun to Daviess County line, to Corum Brothers, Madisonville, at \$60,497.45; Hopkins County, Federal Aid Project No. 41, Sec. G, gravel surface 9.25 mi. Madisonville-Hopkinsville road, from Morton's Gap to Christian County line, not including Nortonville, to Peacock Construction Co., Yale, Mich., at \$95,003.29; Daviess County, State Project No. 20, Sec. J-I, grade and drain 2.6 mi. Louisville-Paducah road, from Hancock County line to Maceo, to Costello Brothers, at \$25,051.50; Kenton County, State Project No. 62, Sec. C, 6.32 mi. reinforced concrete paving on Covington-Falmouth road, from end of State Project No. 62, Sec. B, to Bank Lick Creek, to Cynthiana Construction Co., Cynthiana, at \$197,576.63.

Ky., Jackson—State Highway Comm., Frankfort, let contract to Northfork Construction Co., Jackson, at \$204,818.60 for 7.32 mi. Jackson-Campton road, from Wildhurst to Wolfe County line.

Ky., Prestonsburg—Floyd County Fiscal Court authorized expending \$125,000 to complete 24 mi. Mayo trail between Ashland and Pikesville. Address County Comr.

La., Leesville—Louisiana Highway Dept., Raymond Bldg., Baton Rouge, received bid from J. J. Beeson, Fullerton, La., at \$26,382.83 for 4.47 mi. Leesville-Alexandria Highway, from end of present gravel road to Slagle; Vernon Parish, State Project No. 337, Sec. B.

La., New Orleans—Details under Land Developments.

Maryland—State Roads Comm., 601 Gar-

rett Bldg., Baltimore, received low bids for paving 3 sections of State Highway as follows: From Hudson Paving Co., New York, at \$263,000, to pave with sheet asphalt 2 sections State Highway as follows: 1.72 mi. Park Heights Ave. from Keyworth to Rogers Aves.; .59 mi. Singer Ave. from Reisterstown Road to Park Heights Ave.; from E. R. P. Smith, Hyattsville, Md., at \$8979 to gravel surface 1.04 mi. Crystal Springs Ave., from Central Ave. to Marlboro Pike, Prince Georges County.

Miss., Crystal Springs—City let contract to McEachin & McEachin to extend concrete sidewalks, including walks on S. Jackson St. from Marion Ave. to Cemetery, Marion Ave. from I. C. R. R. to B. D. Avery's residence; Independence St. connecting Marion Ave. and Georgetown St. Address The Mayor.

Miss., Greenwood—City contemplates paving several streets as follows: Church, George and one block on Market St.; Mississippi Ave.; also plans graveling Le Flore Ave. in Austin and Wright Addition; W. S. Hawkins, City Engr.

Miss., Vicksburg—Warren County Highway Comm., will receive bids until Dec. 4 to asphalt patch and repair 5 mi. Hall's Ferry road; plans, etc., from Chancery Clk., or County Highway Engr.; Geo. Williamson, Comm. Sec.

Miss., Yazoo City—City plans paving Main St. from Bridge to Madison, and Broadway from Washington to Y. & M. V. Ry.; plans issuing \$43,500 notes; M. L. Culley, Consult. Engr., Jackson, Miss.

Missouri—State Highway Dept., Jefferson City, plans 2 roads as follows: Madison County, grade 1.39 mi. road from Marquard eastward, State Project, Refund Project No. 1; Ozark County, grade 1.184 mi. road from Gainesville to West Plains, State Project, Route 80, Sec. 1; B. H. Piepmeyer, Ch. Engr.

Missouri—State Highway Dept., Jefferson City, Mo., plans grading and improving 6 road projects as follows: Atchison County, 2.426 mi. road from Tarkio to Fairfax; State Project Route 1, Sec. 6; Holt County, road from Oregon to Savannah; State Project Route 1, Sec. 19; Jackson County, 2.583 mi. concrete surfacing from Kansas City to Harrisonville; State Project Route 35, Sec. 3; Lincoln County, 4.039 mi. gravel surface from Troy to Warrenton; State Project Route 47, Sec. 1; Putnam County, 2 sections, from Green City to Unionville; Sec. 3, grade 2.939 mi.; Sec. 2, grade 3.828 mi.; State Project Route 5; B. H. Piepmeyer, Ch. Engr., Jefferson City.

Mo., Maysville—Dekalb County Court will receive bids for grading and straightening road between Sec. 14 and 15, Township 59, Range 31, Camden Township, about $\frac{1}{4}$ mi. north of George Williams' home. Address County Comr.

Mo., Moberly—City plans re-surfacing Coates St. with Kentucky rolled asphalt. Address The Mayor.

Mo., New Franklin—City will improve streets; voted \$30,000 bonds. Address The Mayor.

Mo., St. Joseph—Mike Costello was awarded contract to grade Agency-Gower road, at 14½ cents cu. yd. Address The Mayor.

Mo., Springfield—City let contract to V. E. Koch, Joplin, Mo., to pave following streets: Kickapoo, from Elm to Grand, at \$2.09 per sq. yd.; Elm, from Broadway to Fort, at \$1.94 per sq. yd.; Madison, from Kickapoo to McCann, at \$1.92 per sq. yd.

Mo., Springfield—City plans widening Chestnut St., between Jefferson and Main Aves. Address The Mayor.

Mo., Washington—City plans paving with macadam and laying concrete curb and gutter on following streets: Johnson and Rand from Roberts to 2nd. Address The Mayor.

N. C., Biltmore—City will re-surface streets; Julian Kitchen, Mayor.

N. C., Greensboro—Details under Land Developments.

N. C., Murphy—Cherokee County plans building Andrews-Aquone-Franklin road; will vote Dec. 15 on \$25,000 bonds. Address County Commsr.

N. C., Rutherfordton—City let contract to Geer-Wilson, Rutherfordton, at \$25,000 for additional paving, including 2400 ft. on Green St.

Okla., Duncan—Kiwanis Club interested in hard surfacing 1 mi. street from city to cemetery.

Okla., Enid—City receives bids until Nov. 17 to furnish material and improve E. Randolph Ave. from N. 22nd St. to East Boulevard; 2-in. asphaltic concrete pavement on 5-in. concrete base; plans, etc., from City Engr.; R. T. Williams, City Clk.

Okla., Guymon—City let contract to James Stanton Construction Co., Leavenworth, Kan., at \$70,000 to pave 5 blocks on Main St., and at \$20,000 for improvements around Rock Island R. R. station; also plans paving 20 additional blocks. Address The Mayor.

Okla., Oklahoma City—Board of Education will receive bids until Nov. 19 for 4000 sq. ft. sidewalk at Linwood School, and 2000 sq. ft. 6-in. driveway and 200 ft. 6-in. curb at Webster Junior High School; A. E. Moshrush, Clk., Administration Bldg., 400 N. Walnut Ave.

Okla., Oklahoma City—City let contracts at \$82,376.70 for paving about 10 blocks as follows:

To Western Paving Co., at \$24,979.10, for Ave. B, from Walker St. to Shartel Ave.; at \$19,946.85 for 45th St. from Classen Blvd. to Western Ave., at \$9998.35 for 44th St. from Classen Blvd. to Military Ave.; to Reinhart & Donovan to pave alley in block No. 39, and at \$10,452.80 for Ave. B, from Klein St. to Douglas Ave.; to M. A. Swatek Co., for 11th St. to blocks 15 and 16, Summers Addition, and at \$9119.90 for 11th St. on McKinley Ave. to point 595 ft. east; all Oklahoma City; contemplates paving 28th St. from Santa Fe to Blackweller Aves.; 18th St. from Young's Blvd. to Cross Ave. Address The Mayor.

Okla., Picher—Picher Ad Club, Theodore Kallmayer, interested in paving principal business streets.

Okla., Sapulpa—Creek County plans 68 mi. concrete road; contemplates \$750,000 bond issue. Address County Commsr.

Okla., Tecumseh—Details under Bridges, Culverts, Viaducts.

Okla., Vinita—Craig County plans expending \$16,000 to gravel 5 sections of roads as follows: 3 mi. Welch-Miami road; 2½ mi. north and west from end of refinery rock road near Vinita; ¼ mi. Big Cabin Road, west from Cabin Creek Bridge near Vinita; 1 mi. Vinita-Ketchum road; ½ mi. Jefferson Highway. Address County Commsr.

Okla., Wagoner—Wagoner County plans resurfacing and improving 17 mi. Wagoner road from Tulsa County line to Muskogee County line to point between Coweta and Haskell. Address County Commsr.

S. C., Cheraw—City let contract to Ely Construction Co., Augusta, Ga., to pave sidewalks and streets.

S. C., Hampton—Hampton County will receive bids until Nov. 28, at office of Goethe Township Highway Comm., Estill, S. C., for 13.123 mi. State Route No. 33, from Hamp-

ton-Allendale County line near Fairfax, to Estill; 32,233 cu. yds. sand-clay surfacing; 29,134 lbs. reinforcing steel in drainage structures; also to construct nine 14-ft. span creosoted timber bridge; Federal Aid Project No. 51; plans, etc., from W. C. Cathey, Div. Engr., 8 Scovil Bldg., Orangeburg, S. C., and State Highway Engr., Columbia, S. C.

S. C., Laurens—Laurens County Good Roads Assn., organized with following temporary officers: J. F. Jacobs, Pres.; B. R. Fuller, Sec.-Treas.

S. C., Spartanburg—Spartanburg County Highway Comm., will receive bids until Nov. 27 for 4.296 mi. State Route No. 8, from city limits of Spartanburg toward Pacolet River to Survey Station 230; 45,360 sq. yds. plain cement concrete surfacing, or 41,580 sq. yds. sheet asphalt or bituminous concrete surface on cement concrete base; Federal Aid Project No. 229; plans, etc., from E. D. Sloan, Div. Engr., Greenville, S. C.

S. C., Union—City plans laying permanent paving on various streets; contemplates \$146,000 bond issue; O. E. Smith, Mayor.

Tenn., Blountville—State Dept. of Highways and Public Works, Nashville, Tenn., plans 8 mi. concrete highway between Blountville and Kingsport.

Tex., Anderson—Grimes County, Road Dist. No. 1, plans road building; voted \$450,000 bonds; R. M. West, County Judge.

Tex., Austin—Travis County will receive bids until Dec. 3 for 5.57 mi. State Highway No. 2 Round Rock road; 48,045 lbs. reinforcing steel; Federal Aid Project No. 409; O. Leonard, County Engr. (Lately noted.)

Tex., Austin—Travis County plans building graveled, macadamized and paved roads; will vote Dec. 14 on \$1,500,000 bonds. (Lately noted to vote Oct. 25.)

Tex., Canadian—Hemphill County, Road Dist. No. 1, plans highway improvements; will vote Dec. 1 on \$13,000 bonds; R. H. Spiller, County Engr.; J. E. Stephens, County Judge.

Tex., Cleburne—Johnson County will receive bids until Dec. 4 to grade and gravel surface 5.73 mi. State Highway No. 10; 14,173 cu. yds. gravel; State Aid Project No. 443; W. J. VanLondon, Alvarado, Supvg. Engr.

Tex., Coleman—Coleman County let contracts at \$80,000 for 2 sections of roads, totaling 10 mi. as follows: Gravel surface road between Rockwood and Colorado River, to Buchanan & Veasey, Temple; grade and construct drainage structures on Coleman-Glen Cove road, to E. Blankenstein, Temple, Tex.; for 5 steel trusses with concrete floors and concrete substructure, to Austin Bridge Co., Dallas.

Tex., Dallas—Details under Land Developments.

Tex., Dallas—City plans expending \$250,000 to \$300,000 to pave 17 additional streets, including Cockrell, Colonial, 2nd, Fitzhugh, Walter, Madison, Oram, Henderson, 9th, Waverly, etc.; Warrenite bitulithic, rock asphalt, Willite sheet asphalt, Willite asphaltic concrete and vitrified brick; on 6-in. concrete base; will receive bids soon; E. A. Kingsley, City Engr.

Tex., Desdemona—City will improve streets; voted \$10,000 bonds; G. H. Rieger, Mayor.

Tex., Fairfield—Freestone County plans improving roads; will vote Dec. 22 on \$1,000,000 bonds. Address County Commsr.

Tex., Fort Worth—City will receive bids soon to pave 5 streets as follows: Bunting Ave. in Arlington Heights, from Belle Place to Bertrose Ave.; Aves. G, I, J, all from Vaughn to Mackey Sts.; Essex Ave. from

Camilla St., to Vickery Blvd.; let contract to West Texas Construction Co., 504 Cotton Exchange Bldg., Fort Worth to pave following streets: Lilac from 5th to College Aves.; Tennessee from Terrell to Besse; Wabash Ave. from Gibson to Westview; to General Construction Co., 403 Cotton Exchange Bldg., Fort Worth, for following streets: N. Houston, Terrell Ave., Virginia Place, Westest Ave.; will also pave W. Broadway, from Henderson to Ballinger; Address City Engr. Lewis.

Tex., Hallettsville—Lavaca County will receive bids until Dec. 11 for 14.23 mi. State Highway No. 3-B; 359,560 lbs. reinforcing steel; Federal Aid Project No. 373-B; W. H. Koether, County Engr. (Lately noted.)

Tex., Hebbronville—Jim Hogg County plans highway building; voted \$60,000 bonds; A. M. Buemford, County Judge.

Tex., Hillsboro—Hill County let contract to Womack Construction Co., Sherman, at \$30,482.59 to gravel surface 4.85 mi. State Highway No. 2-E, Road Dist. No. 5; Federal Aid Project No. 413-B; County to furnish gravel.

Tex., Houston—Details under Land Developments.

Tex., Houston—Harris County will vote Dec. 18 on \$750,000 bonds for road and bridge improvements; State to furnish \$225,000; plans improving 35 roads, and appropriations contemplated as follows. Humble road, \$40,500; East Montgomery, \$29,500; Crosby, \$113,000; Katy, \$39,000; Main St., \$20,000; Galveston, including 10 culverts for extension of Washington St., \$180,000; Telephone Cut-off, \$32,000; Telephone, \$25,000; La Porte, \$70,000; Chocolate, \$14,000; Seabrook loop, \$53,000; Griggs, \$2300; Scott, \$2000; Broadway, \$14,000; Clinton, \$10,200; Goose Creek-Baytown, \$2500; Baytown-Lynchburg, \$7000; Atascocita, \$10,000; Huffman, \$4500; Bay Ridge, \$1500; Goose Creek-Cedar Bayou, \$10,000; Kuykendahl, \$6000; Goose Creek Ave., \$6000; Houston Ave., extended, \$8500; Panola St., \$1500; W. Montgomery, \$10,000; Cypress-Rose Hill, \$1500; Moonshine Hill, \$1500; Leeland Ave. over Bray's Bayou, \$20,000; Battle Ground, \$6500; Westheimer, \$12,000; Wallisville, \$7000; Crosby-Lynchburg, \$6000; Spring, \$2000; all contingent upon bond issue; Chester H. Bryan, County Judge.

Tex., Jacksboro—Jack County plans bituminous macadam pavement on State Highways Nos. 25 and 26; and F. F. F. Highway, which crosses County; voted \$400,000 bonds; State and Federal aid granted \$650,000; J. D. McComb, County Judge.

Tex., Karnes City—Karnes County plans road building; will vote soon on \$125,000 bonds; D. O. Klingemann, County Judge.

Tex., Kaufman—City plans widening W. Grove St. west from Courthouse, and paving Madison St. between E. Mulberry and E. Grove Sts.; also plans installing lights on E. Mulberry St. from Courthouse Square to T. & N. O. R. R. station, and on other streets. Address The Mayor.

Tex., McKinney—Collin County will receive bids probably in Dec. for 7 mi. road in County; also to build reinforced concrete slab bridge; Federal Aid Project No. 402; estimated cost \$350,000; F. W. Cawthon, County Engr.

Tex., Marlin—Falls County will receive bids until Dec. 11 to grade, construct drainage structures and lay concrete on 1.8 mi. road from McLennan County line to Bell County line; Federal Aid Project No. 75; J. P. Wehrung, County Engr., Lott; Walter S. Hunnicutt, County Judge, Marlin. (Lately noted.)

Tex., Marlin—Falls County let contracts for 2 roads as follows:

5.68 mi. 16-ft. gravel surface road on State Highway No. 44, State Aid Project No. 410-B, to P. M. Skinner, Dallas, at \$96,000; 7.65 mi. ft. gravel surface road on State Highway No. 44, Federal Aid Project No. 331-B, State Aid Project No. 410-A, to Huse, Popejoy & Bro., Marlin, at \$84,502.73.

Tex., Palestine—Anderson County will receive bids until Dec. 10 for 2 sections road as follows: 9.8 mi. Palestine-Montalba road, 92,006.2 sq. yds. concrete pavement; 75,166 lbs. reinforcing steel for structures; 4347 sq. yds. concrete paving adjacent to above work; plans, etc., from T. M. Campbell Jr., County Auditor.

Tex., Palo Pinto—Palo Pinto County will receive bids until Dec. 6 for 3.99 mi. brick pavement and concrete curbing on State Highway No. 1, between Mineral Wells and Parker County line; 35,119.98 sq. yds. vitrified brick, 42,180 lin. ft. concrete curb; plans, etc., from G. W. Courier, County Engr.

Tex., Port Arthur—City will vote Nov. 27 on \$1,036,593 for municipal improvements, as follows:

Asphalt pavements and storm sewers, \$297,937; shell and gravel paving, \$169,960; improve Shreveport Ave. and cover open drainage ditch, \$69,449; park improvements \$19,825; fire department, \$56,500; new pumping units for increased water extensions, \$91,262; incinerator, \$45,000; breakwater and boat landing at pleasure pier, \$6125; repair and improve city slip, \$9000; extend water lines, \$119,447; sanitary sewer line, \$132,633. Address Mayor Logan. (Lately noted.)

Tex., Sherman—City receives bids until Nov. 19 to furnish material and lay 8365 sq. yds. paving; 1180 lin. ft. curb and gutter; plans, etc., from O. J. S. Ellingson, City Mgr.

Tex., Sierra Blanca—Hudspeth County will receive bids until Dec. 19 for 9.03 mi. gravel road on State Highway No. 1, between Sierra Blanca and Alamo; 21,040 lbs. reinforcing steel; Federal Aid Project No. 399; gravel to be furnished by County; J. W. Carter, Engr., Courthouse, El Paso, Tex. (Lately noted.)

Tex., Sinton—San Patricio County, Road Dist. No. 3, plans connecting with Gregory Dist. road; will vote Dec. 8 on \$25,000 bonds. Address County Comms.

Tex., Sonora—Sutton County plans 37.1 mi. Old Spanish Trail Highway, between Sonora and Kimble County line; grade, construct drainage structures and gravel surface 17 mi.; grade, construct drainage structures 20.1 mi.; estimated cost \$430,000; H. P. Stockton, Jr., County Engr.

Tex., Waco—St. Louis Southwestern Ry., Cotton Belt Route, W. S. Hanley, Ch. Engr., Tyler, Tex., let contract to Southwestern Construction Co., Houston, to pave Mary St. from 8th to 11th Sts.; City will pave 11th St. from Austin to Clay. Address The Mayor.

Tex., Yoakum—City contemplates graveling streets, including Irvin from business section to San Antonio & Arkansas Pass Ry. shops. Address The Mayor.

Va., Bristol—Details under Land Developments.

Va., Graham—City plans asphalt treating main streets; completing E. Graham St.; also building concrete bridge over Whitley's branch on Morton St.; Phil Williamson, City Engr.

Va., Norfolk—City plans expending \$7256 to lay crushed stone on streets in Ballentine Place; also plans paving May Ave. from

Princess Anne road south, etc. Address City Mgr. Causey.

Va., Richmond—City will receive bids until Nov. 23 to pave with concrete, Taylor St. from Linden to Harrison; grade and gravel 21st and 22nd Sts., from V to X Sts.; to grade alleys in blocks 33rd, 34th, Leigh and M Sts.; plans, etc., on file; Allen J. Saville, Director of Public Works.

Va.-Tenn., Bristol—City plans street repaving, including Windsor, Woodlawn, Virginia, Highland, Norfolk Aves.: Alabama, Olive, Cherry, Mary, Moore, Cumberland and Sycamore Streets. Address The Mayor.

Va., Winchester—State Highway Comm., Richmond, Va., has allocated \$30,000 to improve Winchester road from Winchester to West Virginia line near Capon Bridge, Hampshire County; Henry G. Shirley, Comm. Chmn.

West Virginia—State Road Comm., Charleston, will receive bids until Dec. 11 for 14 road projects as follows:

Fayette County, 2 sections: 130—8.15 mi. bituminous macadam Ravenswood-Greenbrier County line road; 128—grade, drain and pave with bituminous macadam .4 mi. at Ansted; 127-B—Greenbrier County, 5 mi. bituminous macadam Clintonville-Alta road; Wayne County, 2 sections; 3190—grade and drain 7.4 mi. Fleming-Dunlow road; 3202-B—grade and drain 2.4 mi. Fleming-Dunlow road; 3116-C—Wood county, grade, drain and pave with concrete 4 mi. Dallison-Ritchie county line rd; 3260—Ritchie County, grade, drain and pave with concrete 3 mi. Wood County line-Nutter Farm Road; 3165—Calhoun County—grade and drain 1 mi. Main St. at Grantsville; 3082-A-1—Wetzel County—grade, drain and pave with concrete .2 mi. from corporation line, at New Martinsville to northerly line of Long St.; 3279-A—Webster County, grade and drain 10.8 mi. Diana-Cleveland road; Preston County, 2 sections; 3203-D—grade and drain 6 mi. Northwestern turnpike; 3203-E—grade and drain 5 mi. Northwestern Turnpike; Barbour County, 2 sections; 3276—grade, drain and pave with bituminous macadam 1.5 mi. Philippi-Clarksburg road; 3184—7.4 mi. bituminous macadam Philippi-Grafton road; plans, etc. on file and from Div. Engrs.; E. B. Carskadon, Sec. of Comm.

West Virginia—State Road Comm., Charleston, will receive bids until Dec. 13, to build 11 road projects as follows:

No. 3304-A—Monroe County, grade and drain 10 mi. Rock Camp-Peterstown road; Pocahontas County, 2 sections; 131—2.1 mi. bituminous macadam Marlinton-Buckeye road; 132—4.2 mi. bituminous macadam Buckeye-Mill Point road; 3200—Logan County—grade and drain 6 mi. Blair-Ethel road; 3229—Taylor County—grade and drain 7 mi. Northwestern Turnpike; 3278-A—Lewis County, grade and drain 6.5 mi. Glenville-Western road; 3160—Doddridge County—8.14 mi. concrete on Northwestern Turnpike; Preston County, 2 sections; 3272—grade, drain and pave with bituminous macadam 6.5 mi. Reedsville-Monongalia County line road; 3186—grade and drain 5 mi. Thomas-Oakland road; 3274—Monongalia County, grade, drain and pave with bituminous macadam 8 mi. Morgantown-Preston County line road; plans, etc. on file or from Div. Engr., E. B. Carskadon, Sec. of Comm.

W. Va., Buckhannon—State Road Comm., Charleston, and Upshur County, will receive bids until Dec. 10 to grade, drain and pave with concrete 7.05 mi. Buckhannon-Clarksburg road, Warren Dist., between Buckhannon Dist. line and Barbour County

line; Upshur County, Project 3238-B; plans, etc., from Div. Engr., Morgantown, W. Va., or E. B. Carskadon, Sec., State Road Comm.

W. Va., Charleston—City plans municipal improvements as follows: grade and pave streets, avenues and alleys, \$360,000; erect bridge over Elk River at Spring St., \$200,000; acquire property for parks, erect public market house, and other public buildings, etc., \$450,000; install sewers, \$190,000; will vote Dec. 20 on \$1,500,000 bonds. Address Mayor Wertz.

W. Va., Huntington—City will receive bids soon to pave Artesian Ave. between 17th and 20th Sts. Address Mayor Chapman.

W. Va., Princeton—Mercer County let contract to Rumburg & Hill, Princeton, at \$21,050 for 2 sections of roads totaling 3 1/4 mi. as follows: From Dawson's School to Bluefield-Bramwell road; from Bluefield-Bramwell road at Brush Fork to point on Falls Mills road.

W. Va., Romney—State Road Comm., Charleston, will receive bids until Dec. 13 to grade, and drain 5 mi. Pleasantdale-Hanging Rock road, Hampshire County, Project No. 134; plans, etc. on file, or from Div. Engr.; E. B. Carskadon, Sec. of Comm.

Sewer Construction

Ala., Montgomery—Details under Road and Street Construction.

Ala., Pell City—Details under Water Works.

Ark., Fort Smith—A. G. Loewe will install sewer in Moore's Addition.

Fla., Miami—Details under Land Development.

La., Baton Rouge—Louisiana State University, R. L. Hines, Sec. Building committee, will receive bids until Nov. 23 to construct approximately 5500 lin. ft. sanitary sewers and machinery for sewage pumping plant.

Mo., Independence—City let contract to Earl P. Audet for construction of sewer in Dist. 90 on Washington St.

Mo., Marceline—City, A. Munyon, Mayor, let contract to Ray & Son, Baxter Springs, Kansas, at \$50,247 for main sewers and sewage disposal plant; are also considering constructing sanitary sewer district for construction of lateral sewers; Benham Engineering Co., Consol. Engrs., Kansas City, Mo. (Lately noted.)

Mo., Maitland—City, H. E. Kelly, Clk. let contract to James O'Neal, Levansworth, Kansas, to construct sewer system; cost \$20,500; Shockley Engineering Co., Kansas City, Mo. (Lately noted.)

N. C., Charlotte—Details under Land Developments.

N. C., Greensboro—Details under Land Developments.

Okl., Stroud—City voted \$53,000 bonds for construction of main sewers and sewage disposal plant; Benham Engineering Co., Consol. Engrs., Kansas City, Mo.

Tex., Dallas—Details under Land Developments.

Tex., Fort Worth—McKenzie Construction Co. of San Antonio, Tex., has contract at \$27,105 for laying sewer mains in Riverside Addition.

Tex., Port Arthur—Details under Road and Street Construction.

W. Va., Charleston—Details under Road and Street Construction.

Shipbuilding Plants

Tex., Port Arthur—McEwan Shipbuilding & Repairing Co., reported to have purchased \$1,000,000 dry docks at Jacksonville, Fla. and plans removal to Port Arthur, will operate.

Telephone Systems

Fla., Eustis—Lake County Telephone granted franchise to rebuild plant, using the drop light system and providing switch board with capacity of 9600 telephones.

Fla., Miami—South Atlantic Telephone & Telegraph Co., F. W. Webster, Mgr., let contract to Automatic Electric Co., of 21 East 40th St., Chicago, Ill. to install additional automatic apparatus in the central office, increasing capacity to about 4000 phones.

Ky., Fairfield—Fairfield Telephone Exchange, incorporated by J. C. Cain, W. W. Grigsby and others.

Mo., Clinton—Missouri Union Telephone Co., G. W. Schwer, Mgr., 110 E. Franklin St., will erect \$10,000 fireproof, telephone office building, open bids about January 1, 1924; install switch boards, etc. (Lately noted.)

N. C., Tarboro—Carolina Telephone & Telegraph Co., increased capital from \$750,000 to \$2,000,000.

Tenn., Chattanooga—Cumberland Telephone & Telegraph Co., F. L. Woodruff, Gen. Mgr., main office Atlanta, Ga. will begin construction of conduit on Cherry to Chestnut St. which is part of the program which the company has announced as proposes to spend \$500,000; also reported improvements costing \$170,000 will be made during the year 1924; L. L. Billups, local mgr.

Tenn., Lewisburg—Limestone Telephone Co. increased capital from \$25,000 to \$50,000.

Tex., San Antonio—Southern Radio Corp., capital \$35,000, incorporated by John C. Rodriguez, Frank Kaymore and others.

Textile Mills

Ala., Decatur—J. O. Wells of Wells Knitting Co., of St. Joseph, Mich., will double present capacity of mill.

Mo., Carthage—Carthage Hosiery Mills, capital \$50,000, incorporated with Paul F. Vogel, Pres. Belleville, Ill.; will establish plant with daily output of 200 doz. prs. of hose.

N. C., High Shoals—Manville Jenckes Co., Pawtucket, R. I., holders of the Loray interests in Gastonia, N. C., have acquired entire holdings of the High Shoals Cotton Mills, including the plant, buildings, 18,500 spindles, 600 looms, and 1300 acres of land; reported to convert plant into weave mill; and add additional units to equipment.

N. C., Duke—Irwin Cotton Mills let contract to The Wilson Co., Greenville, S. C. through E. P. Andrews of the Charlotte office of The Wilson Co. for structural steel, reinforcing and miscellaneous iron amounting to \$35,000. (Full details lately noted in issue of Oct. 11.)

S. C., Greenville—American Spinning Co. is having plans prepared by J. E. Stirrane & Co., Engrs., Greenville, for addition to cloth room; cost about \$15,000.

S. C., Landrum—Appalachian Hosiery Mills, capital \$50,000, incorporated with Joseph Lee, Pres.; B. F. Owens, Sec.

Water Works

Ala., Birmingham—Birmingham Water Works Co., H. H. Horner, Gen. Supt., plans expenditure of \$420,000 during 1924 in improvements; included in the program are the following: \$20,000 for building and completing superstructure for eight concrete filters at Shade Mountain plant; \$45,000 for completion of piping, strainers and other betterments of the filters; 10 blocks of additional 12-in. main for Hillman Ave.; laying of 5000 ft. of 12-in. water main in East Thomas; completion of 16-in. water main in Possum

Valley Rd.; 12-in. reinforcing main on 16th St.; construction of 12-in. reinforcing main on 16th St.; company has also completed arrangements for taking over Roebuck Water system. (Lately noted as planning developments to water works in city and outlaying districts.)

Ala., Pell City—City, J. O. Gray, Mayor, has had survey made by I. F. McDonnell, Municipal Engr., for proposed water and sewer system; will probably vote on \$50,000 bonds.

Fla., Eagle Lake—City, J. H. Atty., receives bids until Nov. 23 for 50,000 gal. steel water tank, tower and distribution system; address D. M. Delk, City Clk.

Fla., Fort Lauderdale—City will vote \$100,000 bonds to include: \$45,000 for water extension for \$40,000 for streets, \$12,000 for dock, seawall and harbor improvements; and \$3000 for lot cleaning enforcement; Maxwell Baxter, City Atty.

Fla., Frostproof—Details under Road and Street Construction.

Fla., Miami—Details under Land Developments.

Ga., Ray City—City voted \$7000 bonds for water and light system. Address The Mayor.

Ky., Owensboro—City, J. H. Hickmann, Mayor, voted \$100,000 bonds for extending water mains. (Lately noted.)

La., New Orleans—Board of Health approved recommendation of Dr. John Calla, Supt. of Health, for the construction of filtration plant.

La., Vidalia—City will vote Dec. 18 on \$27,500 bonds for water works system. Address The Mayor.

Mo., Thayer—City will vote Dec. 4 on \$55,000 water bonds. Address The Mayor. (Recent election declared invalid.)

N. C., Charlotte—Details under Land Developments.

N. C., Greensboro—Details under Land Developments.

N. C., Greensboro—A and T College, Dr. M. C. S. Noble, of Chapel Hill, Chmn., let contract to Thomas N. Howard for laying 1350 ft. of 6-in. cast iron water main pipe.

N. C., Hickory—City authorized installation of gravity water system at cost of \$90,000, with probable extension to nearby towns at a total cost of about \$2,250,000. Address The Mayor.

N. C., Laurinburg—City, H. W. Malloy, Mayor, opens bids December 18 for water works improvements to consist of the following: brick and concrete pumping station, filter house and filter tube; brick and concrete auxiliary station; concrete coagulating basin; concrete storage reservoir; steel wash water tank and tower; 3½ miles of cast iron pipe line; 3½ miles of 6600 volt transmission line; motor driven centrifugal pumps and accessories; filter plant equipment; Gilber C. White Co., Engrs., Durham, N. C.

Oka., Nowata—City Comms. contemplate voting on \$125,000 bonds for water works improvements and extensions; Benham Engineering Co., Constl. Engrs., Kansas City, Mo.

S. C., Florence—City let contract to J. R. Connelly to drill well at park at foot of S. Queen St.

S. C., Manning—Comms. of Public Works authorized extension of water mains on Dinkins and Railroad Sts.; 6-in. cast iron pipe, class B. and 3 hydrants; F. P. Ervin, Supt. Water Works.

Tex., Dallas—Details under Land Developments.

Tex., Malone—City, A. J. Pyburn, Mayor,

votes Dec. 4 on \$40,000 bonds for construction of waterworks improvements.

Tex., Port Arthur—Details under Road and Street Construction.

Va., Chatham—City will vote Dec. 18 on \$50,000 bonds for increasing water supply. Address The Mayor.

W. Va., Fairmont—City Board of Directors, authorized J. Clyde Morris, Director, to construct pipe line to supply industrial belt on East Side; estimated cost \$25,000.

W. Va., Martinsburg—Charles W. Kilbourn of the committee appointed by City Council to investigate water supply situation, made the following recommendations; the expenditure of \$12,000 for suction reservoir; \$13,000 for new iron pipe and repairs to terra cotta pipe; \$30,000 for two Diesel oil pumping engines and pumps installed; \$37,500, for 3000 meters; will probably vote on \$100,000 bonds.

Woodworking Plants

Fla., Watertown—Marsh Brothers Stave & Heading Co., organized with \$40,000 capital; have under construction 20,000 ft. daily capacity saw mill, has stave mill for making rosin barrel staves and headings, daily capacity 500 bbl.

Ky., Cynthiana—Quality Furniture Co. incorporated by G. C. Moury, Chas. W. Willis and others.

Md., Baltimore—Leonhardt Wagon Works, Edward M. Leonhardt, Pres., 417 E. Saratoga St., will erect 250x150x16-ft. plant on east side of 8th St. near Philadelphia Rd.; concrete, composition roofing, steam heat; estimated cost \$40,000; construction by owner; will manufacture wagon and auto commercial bodies.

Mo., St. Louis—Hussey-Hobbs Tie Co., formed by the consolidation of the Ozark Tie Co., of Rogers, Ark., the Gulf Tie Co., of Houston, Tex., and the Hussey Tie Co., of Shreveport, La.; will establish branch at Rogers, Ark., with W. A. Gear as manager.

N. C., High Point—The J. Elwood Cox Manufacturing Co., Joseph D. Cox, Mgr., will rebuild plant on Hamilton St., estimated cost \$10,000. (Previously noted burned.)

Tenn., Chattanooga—Rhodes-Jones Furniture Co. increased capital from \$10,000 to \$30,000 and changed name from Rhodes-Jones-Brown Furniture Co.

FIRE DAMAGE

Ala., Atmore—Crystal Ice Co.'s plant including ice cream factory; loss not estimated.

Ala., Hartselle—Hardy Harris' residence, E. Main St.

Ala., Tuscaloosa—J. W. Auxford's stove eleven miles from Tuscaloosa; loss \$25,000.

Ark., Ozark—Ratcliff Gin, loss \$12,000; building owned by A. E. Dilly.

Ark., Wesson—Edgar Lumber Co.'s mill; loss \$150,000.

Ark., Newport—Residences of Arthur Bowie, Circuit Clk. C. K. Coe and J. S. Wilmans, latter occupied by Miss Bertha Cohn; total loss \$12,000.

D. C., Washington—Warehouse of Philip Levy & Co., 90 L St., loss \$100,000; warehouse of Jno. H. Wilkins Co., at 523 Rhode Island Ave., loss \$100,000.

Fla., Bartow—Lee and Kirkland's packing plant at Lake Garfield, Fla., loss \$75,000.

Fla., Magnolia Springs—Main building and 3 cottages of the Florida Military Academy; loss \$100,000.

Ga., Cartersville—W. A. Dodd's opera house, loss \$20,000; Maxwell & Tinsley's stables, automobile; Sewell drug store building; Frank Monroe's barber shop; J. S. Harloye's shoe repair shop; Gilreath-Webb Drug Co.; the Roper Market; Sinkovitz junk shop; total loss \$50,000.

Ga., Gray—P. R. Chambliss Bldg., Chambliss Drug Store, post office and Masonic lodge; loss \$10,000.

Ga., Savannah—The paint shop, upholstering plant and planing mill of the Central of Georgia Ry. Co.; loss estimated at nearly a million of dollars.

Ky., Frankfort—Will True's barn including 12,000 pounds of tobacco and an automobile; loss \$10,000.

Ky., Harlan—Baxter Lumber & Supply Co.'s plant; loss \$12,000.

Ky., Lynch Mines—Louisville & Nashville R. R. Co.'s depot; W. H. Courtenay, Ch. Engr., Louisville, Ky.

Ky., Middlesboro—Commissary at Fork Ridge and residences of W. R. Loveday and L. C. Poe; loss \$50,000.

La., Covington—The Ozonia Hotel; loss \$50,000.

La., New Orleans—Seinzenier Paper Co.'s building on St. Peters St., estimated loss \$100,000.

La., New Orleans—Emerson Shoe Store and Rex Hat store on Rampart St., loss \$50,000.

Md., Clarksville—T. Denton Miller's residence near Clarksville.

Md., Lime Kiln—Store, offices, post office and dwelling occupied by Geo. Phillip, of Wm. J. Grove, Pres., M. J. Grove Lime Co.; loss \$25,000.

Miss., Tupelo—Leake and Goodlett's lumber yard; loss \$25,000.

Miss., Utica—Utica Institute Negro School's main building; loss \$75,000.

Mo., Gasconade—Store room at government boat yards and office building, loss \$75,000. Address Custodian.

Mo., Purdy—High School building was completely destroyed.

Mo., Seneca—Mace Mill and Elevator Co.'s grain elevator, loss \$150,000.

N. C., Asheville—Edw. A. Farley's clotning store, 16 S. Pack Square; Moore's cash & carry grocery store; loss over \$25,000.

N. C., Midland—P. J. Hartsell's garage and store building; loss \$10,000.

Ola., Ocheleta—Joe Kemmerling's 2-story building; Mrs. Lafferty's rooming house; garage and 15 automobiles; total loss \$45,000

S. C., Columbia—Boy's dormitory of Epworth orphanage; W. D. Roberts, Supt.

Tenn., Cleveland—Hargis Lumber Co.'s plant; loss \$40,000.

Tenn., Gibson—Robert McCaskell's potato house.

Tenn., Martin—C. E. Chandler's potato storage house; loss not estimated.

Tenn., Nashville—Building occupied by Tennessee-Hermitage Grain Elevator and owned by Charles D. Jones of Charles D. Jones & Co.; estimated loss \$1,000,000.

Tenn., Ridgely—Churchill Gin Co.'s plant; loss \$25,000.

Tenn., Selmer—B. B. Wilson's store, Ellis & Butler store, Fariss & English store, and residences of R. L. Jones, J. L. Ledbetter and J. S. Carroll, all at Adamsville, east McNair County; total loss \$18,000.

Tex., Big Wells—Shumate's store, Big Wells Hotel and the Karl E. Ward Oil and Filling Station; loss not announced.

Tex., Denison—Jennings Furniture Co. building; loss \$40,000.

Tex., El Paso—Mayer & Klein Clothing Shop, Womans Specialty Shop, Chocolate Confectionery Shop and Hotel Fay, loss \$75,000.

Tex., Greenville—Greenville Gin Co.; loss \$15,000.

Tex., Irene—Farmers and Merchants gin; loss \$20,000.

Tex., Navasota—Schumacher Oil Mill, loss not estimated.

Tex., Palestine—Geo. D. Broyles' residence South end of Magnolia St.; loss about \$8500.

Tex., Victoria—Mrs. L. F. Jecker's residence, 408 E. Constitution St.; loss about \$8500.

Tex., Wichita Falls—Wichita Falls Cotton Oil Co.'s plant; loss \$12,000.

Va., Buchanan—H. H. Chenault's store and residence and the M. E. Church; loss \$27,000.

Va., Fincastle—Fincastle Marvel Mills, loss \$12,000; owned by G. T. Slusser.

Va., Midway—School building was completely destroyed; loss not estimated.

Va., Norfolk—Building at 60 Roanoke Dock occupied by American Fruit Growers and the Fruit Supply Co., estimated loss \$10,000.

Va., Richmond—Chesapeake & Ohio Railway Co.'s paint shop; loss \$30,000.

Va., Charleston—Building occupied by employees of Libby Owens Glass Plant, and building occupied by Jas. Hager; total loss \$20,000.

Va., Charleston—Chero Cola Co.'s plant at 619 Summers St.; building owned by J. B. Clark.

Va., Charleston—Capitol Theatre, loss between \$150,000 and \$175,000.

Va., Charleston—Lowenstein & Sons Hdwe. Co. at Morris St.; loss \$15,000.

Va., Willis Branch—Willis Branch Coal Co.'s store and office, loss \$75,000.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Ark., North Little Rock (Ind. Branch Little Rock)—Benevolent Protective Order of Elks will erect \$75,000 building, 3rd and Poplar Sts.

Fla., Tallahassee—Ancient Free and Accepted Masons plan to remodel or rebuild Masonic Temple.

La., New Orleans—Benevolent Association of Elks, John P. Sullivan, Chmn., Bldg. Comm., will receive bids until December 27th, at office of Sec., 121 Elk Place, for alterations and additions to Elk's Home; drawings and specifications from Rathbone DeBuys, Archt., New Orleans; E. A. Christy, Asso. Archt., 1406 Hibernia Bank Bldg., New Orleans. (Previously noted.)

La., Shreveport—Mithra Grotto will erect temporary auditorium; wood with steel frame; 106x134 ft.; factory maple and colored concrete floors; Sheetrock plaster board; G. I. ventilators; built-up roof—Barrett specification or equal; Jones, Roessle, Olschner & Wiener, Archts., Maison Blanche Bldg., New Orleans; C. W. King, Asso. Archt., First Nat. Bank Bldg., Shreveport; bids probably opened this week.

Md., Baltimore—Grand Lodge, I. O. O. F., J. Edward Kroh, Grand Sec., will remodel buildings at 16-20 W. Chase St. for offices and library and install vault, and erect new building at 12-14 W. Chase St.; total cost \$250,000; J. Edward Lafferty, Archt., 13 W. Mulberry St., Baltimore.

Miss., Laurel—Young Women's Christian Assn. will open bids Dec. 15 for erection of \$50,000 building on Oak St.; slow-burning brick construction; main building, 2 stories, with 1-story, 45x70-ft. building for auditorium; dimensions, over all, about 70x125 ft.; slate and composition shingle roofs; Frank G. Churchill, Archt., Canal-Commercial Bldg., New Orleans, La. (Previously noted.)

N. C., Cherryville—Ancient Free and Accepted Masons have begun construction of 3-story brick building on W. Main St.; cost \$25,000; first floor for business purposes, offices, etc., on second floor and lodge hall and private rooms on third.

Ola., Muskogee—Masonic Building Assn., W. G. Gibbons, Pres., will select architect early in December for fireproof building at 6th and Boston Sts.; cost \$150,000, includ-

ing heating; vaults; rolling partitions. (Lately noted.)

Ola., Tahlequah—Tahlequah Lodge No 105, K. of P., will erect 2-story building; second floor for use of lodge.

W. Va., Charleston—Central Labor Union is considering plans to erect building to be known as Monongalia County Labor Temple.

Bank and Office

D. C., Washington—Federal-American National Bank, John Poole, Pres., has selected Alfred C. Blossof, 680 Fifth Ave., New York, and J. H. DeSibour, Jules H. Hibbs, Bldg., Washington, to prepare plans for proposed \$1,000,000 building at 14th and G Sts., N. W.; 82 x 85 feet; about 70 ft. high; stores on ground floor, banking room above with 2 mezzanine floors; divisions between cages will be of glass; meeting rooms to facilitate lettings. (Lately noted.)

Fla., Daytona—Federal System of Bakeries, F. N. Conrad and O. N. Otis are reported to erect \$350,000 four-story office building on Beach St.; 181-ft. frontage of Indiana limestone; 25-ft. arcade with about 37 stores and shops; tentative plans drawn; Mr. Conrad wired Manufacturers Record as follows: "No definite plans for building."

Fla., Ybor City—Bank of Ybor City will remodel building after plans by Frank A. Winn, Jr., Tampa; rebuild exterior; terra cotta, granite and marble; cost \$12,000.

Ga., Rome—First National Bank, Geo. F. Nixon, Pres., will soon let contract to improve building; install new vault; receiving bids. (Previously noted.)

Mo., Burlington Junction—Dr. L. E. Wallace purchased site on north side Main St. and will erect office in spring.

Mo., St. Louis—Lorenzo E. Anderson & Co., 310 N. 8th St., will erect \$125,000 building, 711 St. Charles St.; ancient Egyptian type facade of polished red granite; 3 stories; 41x71 ft.; elevators; T. P. Barnett Co., Archts., Arcade Bldg., St. Louis.

Tenn., Chattanooga—Dixie Mercerizing Co., Ridgedale, will erect \$13,000 cement block office building, Watkins and Bennett Sts.

Churches

Ark., Siloam Springs—Baptist Church plans to erect building. Address The Pastor.

Ky., Fairview—Missionary Baptist Church, Rev. T. A. Rigg, Pastor, plans to erect building.

Md., Salisbury—Asbury M. E. Church will remodel present building and erect community hall on N. Division St.; cost \$100,000; stone; dimensions undetermined; probably slate roof; pine and concrete floors; steam heat; hollow fireproof tile; plaster board; rolling partitions; wire glass. Address H. P. Fox, Salisbury. (Lately noted.)

Miss., Starkville—Methodist Church purchased site on Main St. and plans to erect \$80,000 building. Address The Pastor.

N. C., Durham—Gospel Tabernacle, Rev. Marvin Hester, Pastor, has option on site at intersection of W. Main and Duke Sts., as possible site for a new building.

N. C., East Durham—Baptist Church, W. E. Stanley, Chmn., Durham, will open bids Nov. 26 (extended date) to erect \$50,000 building; 70x120 ft.; ordinary construction; hardwood and concrete floors; slate roof; metal ceilings; ventilators; rolling partitions; wire glass; vapor system of heat, \$5000; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and Durham. (Lately noted.)

N. C., Greensboro—Grace M. P. Church, J. Norman Wills, Chmn., Bldg. Comm., care Odell Hdwe. Co., plans to invite competitive plans from architects for erection of \$100,000 building; probably brick with slate roof; details not determined. (Lately noted.)

N. C., Shelby—Central Methodist Church is excavating site for \$100,000 building. Address The Pastor. (Previously noted.)

Okl., Holdenville—Church of Christ, A. F. Hall, Elder, will soon let contract for brick building, Main and Burgess Sts.

S. C., Trenton—Baptist Church, J. H. Courtney, Chmn., Bldg. Comm., will erect building after plans by Jas. J. Baldwin, Archt., Anderson, S. C., and Gaffney, S. C.; plans ready for bids.

Tenn., Bearden—Central Baptist Church will erect \$30,000 building; 2 stories, native marble foundation, brick exterior walls, oak and pine floors, hollow fireproof tile, rolling partitions, built-up roof; steam heat; Dougherty & Gardner, Archts., 900 Stahlman Bldg., Nashville, Tenn.; bids to be taken by owner. (Lately noted.)

Tex., Clarksville—Protestant Episcopal Church plans to erect cobblestone building. Address The Rector.

Tex., Fort Worth—Hemphill St. Presbyterian Church, Dr. Chas. H. McCollum, Chmn., Bldg. Comm., plans to erect main auditorium.

Tex., Jefferson—First Methodist Church, Rev. A. J. McCary, Pastor, will improve and erect additions to building; cost \$10,000; contractors estimating.

Tex., Port Arthur—First Presbyterian Church, Rev. T. Alvis Davis, Pastor, will erect \$10,000 building.

Tex., San Antonio—Government Hill Christian Church plans to erect building. Address The Pastor.

Tex., San Antonio—San Fernando Christian Church plans to erect building. Address The Pastor.

Tex., Vidor—Tiger Creek Baptist Church, 3 miles north of Vidor, will erect building. Address The Pastor.

W. Va., Bluefield—Northfork M. E. Church, South, Rev. L. E. Hoppe, Pastor, plans to erect \$20,000 brick auditorium; construction will probably begin in summer.

W. Va., Huntington—Twentieth St. Baptist Church, Dr. B. F. Caudill, Pastor, plans

to start construction early in 1924 on \$80,000 building, 5th and 20th Sts.

W. Va., Morgantown—Baptist Church will proceed at once with plans for \$100,000 building. Address The Pastor.

City and County

Ala., Eufaula—Auditorium—City, H. H. Conner, Mayor, has abandoned plans for the present to erect \$100,000 auditorium. (Lately noted.)

Fla., Frostproof—City Hall—City voted \$300,000 bonds for erection of city hall, street paving, etc.

Fla., Jacksonville—Stadium—City, Milton E. Bacon, Chmn., City Playground Comsn., plans to erect \$30,000 stadium.

Fla., Orlando—Juvenile Home—City and Orange County will erect juvenile home.

La., Opelousas—City Hall—A. J. Perrault, Mayor and Board of Aldermen will receive bids until Nov. 26 for labor and materials to erect city hall, auditorium, library and city jail building, Bellevue and Main Sts.; plans and specifications from E. Leo Ball, Archt., Suite 1, Haas Bldg., Alexandria, La.

Mo., Greenville—Courthouse—Wayne County is having plans prepared by M. J. Laubis, Poplar Bluff, Mo., for erection of courthouse; \$50,000 bonds recently voted; \$7000 county jail in basement.

Mo., Joplin—Concession Stand—City approved plans for \$10,000 concession stand at Schifferdecker Park; bids opened Nov. 16.

N. C., Biltmore—City Hall—City, Julian Kitchen, Mayor, will erect \$20,000 city hall; portion to be occupied by fire dept.

N. C., Fayetteville—Courthouse—Cumberland County will erect courthouse and jail on new site. (Lately noted to erect additions to present building.)

N. C., Gastonia—City Hall—City plans to erect city hall. Address Th. Mayor.

N. C., Shelby—Jail—Cleveland County, A. E. Cline, Chmn., Board of Comr., Columbia, S. C., have instructed Wilson & Berryman, Wilson, N. C., and Gastonia, N. C., to prepare plans for jail to cost \$60,000. (Lately noted to erect \$101,030 jail.)

N. C., Winston-Salem—Dwelling—Forsyth County will erect residence on county property for superintendent of reformatory and plans upon its completion to remodel county home.

Tex., Marshall—City Hall—City is considering plans for bond issue to rebuild city hall lately noted burned. Address The Mayor.

Va., Danville—Home—City, R. W. Garnett, M. D., Health Officer, has low bid by C. M. Webber at \$17,000 for erection of home for aged and infirm; accommodate 28; concrete or frame; wood floors. (Lately noted.)

Va., Norfolk—Market—City Manager will receive bids until Nov. 27 for construction of market building, Middle St., between Columbia and South Sts.; separate bids for heating, plumbing, refrigerating machinery and coils, and refrigerators, cases and insulation.

Va., Fulaski—Fire Station—City will erect building to house volunteer fire dept. Address Town Council.

W. Va., Follansbee—Municipal Building—City plans to erect municipal building; will vote on \$60,000 bonds.

Dwellings

Ala., Birmingham—Chichester & Co., Steiner Bldg., is erecting 10 bungalows on 12th Ave., South, near St. Charles St., lately noted; cost \$4750 and \$5000 each; 30x45 ft.; frame; oak floors; Carey composition

roof; plans by company's archt.; owners build; E. A. Hou, contr. for Arcola heating systems, \$400 each.

Ala., Furman—J. B. Watson will erect frame residence to replace structure lately noted burned; 9 rooms; hardwood and wood block floor; interior tile; vaults; ventilators; ornamental terra cotta rolling partitions; steel sash and trim; wire glass; metal or California cedar shingle roof; hot air furnace or chimney; may install water works, electric lights and vacuum cleaner and later add sun parlor; plans by Mr. Watson. (See McHy. Wanted—Building Material; Heating Plant; Catalogues.)

Ark., Paragould—First Methodist Church will erect 6-room bungalow to replace burned structure. Address The Pastor.

Fla., Fort Pierce—B. Yorkstone Hogg, Box 686, plans to erect 5 to 10 dwellings in the coming season.

Fla., Leesburg—Ralph W. Stearns, Weirsdale, will erect number of dwellings. (See Fla., Weirsdale.)

Fla., Miami—New England Securities Corp., Frank E. Ballard and M. R. Bennett, organized and will develop 100-acre tract adjoining Coral Gables; will erect 3 Spanish type dwellings; 7 and 8 rooms; cost about \$10,000 each.

Fla., Miami Beach—Dittmar Contracting & Engineering Co., Miami, is preparing plans for Spanish American type dwelling, Lenox Ave. and 18th St.

Fla., Sarasota—Owen Burns plans to erect 20 additional Spanish mission type dwellings on Pineapple Ave.

La., New Orleans—A. G. Dardin, 3107 S. Carrollton Ave., will erect 16 dwellings at Rex Court, Derbigny and Roman Sts.; total cost \$16,000; composition roofs.

La., New Orleans—New Orleans Realty Construction Co., 137 Carondelet St., will erect 2 double cottages, Delgado Drive and Dumaine St.; total cost \$11,000; composition roofs.

La., New Orleans—J. E. Vergues, 740 Perdido St., will erect 6 cottages, N. Tonti and Arts Sts.; total cost \$21,000; composition roofs.

La., New Orleans—M. Sazer, 2017 Chestnut St., will erect 6 dwellings on Belfast St., near Burdette St.; total cost \$35,000; following sub-contracts let: Plumbing, Geo. Greenbaud; lumber, New Orleans Lumber Co.; millwork, National Sash & Door Co.; building material, Jahnke Service Inc., all New Orleans.

Md., Baltimore—Kaufman Realty Co., Inc., purchased 8-acre tract fronting on Wilkens Ave., Benzinger, Pitcher and Elma Rds., and will erect number of dwellings.

Md., Baltimore—Mondawmin Construction Co. will erect 22 dwellings, 3201-21 and 3200-20 Mondawmin Ave.; 2 stories; 18x33 ft.; stone foundations; slag roofs; ordinary masonry; total cost \$50,000; Geo. Wessel, Archt., 3001 Littleton Rd., Baltimore.

Md., Baltimore—Welsh Construction Co., 11 E. Fayette St., will erect 8 two-story brick dwellings, 1500-04 N. Pulaski St. and 2100-08 Presstman St.; 19x30x25 ft.; total cost \$25,000.

Md., Baltimore—Walter S. Brauns, 21 W. Saratoga St., will erect 2½-story frame cottage, Underwood Rd., near Cold Spring Lane; 8 rooms; clapboard; slate roof; vapor heat; cost \$12,000; Edw. L. Palmer, Archt., 513 N. Charles St., Baltimore.

Md., Baltimore—Milburn Realty Co., will erect 11 two-story brick dwellings, S. E. cor. Eastern Ave. and 18th St.; 16x40x24 ft.; total cost \$25,000.

Md., Baltimore—Cityco Realty Co., 2 E. Lexington St., will erect 5, 2-story brick dwellings, N. W. cor. Glen Ave. and Higngate Drive; total cost \$15,000.

Md., Baltimore—P. Flanigan & Sons, Inc., Harford Rd. and B. & O. R. R., have started to grade Gunther property at Reisterstown Rd. and Bucks Lane and will erect first group of 50 two-story, brick dwellings; 8 rooms and bath; ultimate plans call for erection of 200 dwellings at cost of \$1,000,000.

Md., Baltimore—E. J. Gallagher Realty Co., Munsey Bldg., will erect 49 dwellings, 3200-08, 3201-17 Westerwald Ave., 3211-13 3201-09 Frisby Ave., and 3201-29, 3200-24 Avon Ave.; 2 stories, brick; 6 rooms and bath; composition roofs; total cost \$200,000; E. J. Gallagher, Archt., Munsey Bldg.

Md., Baltimore—Sam'l. Garonzik, 3435 Greenmount Ave., will erect two, 3-story brick dwellings, S. W. cor. Reisterstown Rd. and Glenmore Ave.

Md., Baltimore—M. P. Gorman will erect 8 two-story dwellings, south side Waldorf Ave., near Virginia Ave.; brick; stone foundations; asphalt roofs; steam heat; total cost \$24,000; plans and construction by owner.

Md., Baltimore—J. Elmer Weisheit, 125 E. Baltimore St., will erect 12 frame bungalows, N. E. cor. Cedarcroft and Cedar Spring Aves.; 1½ stories; 24x28x30 ft.; total cost \$50,000; owner builds.

Md., Baltimore—J. Leroy Wright and others will erect five 1½-story frame dwellings, S. E. cor. Govan and Harwood Aves.; 24x26x25 ft.; Carey asphalt shingle roofs; hardwood floors on first floor; plans and construction by Mr. Wright.

Mo., Carthage—Rev. Dr. J. F. King, Dist. Supt., M. E. Church, plans to erect residence, Grand and Highland Aves.

Mo., St. Louis—Chas. Mueri, 3609 Hartford St., will erect \$10,000 brick tenement house, 702 Wilmington St.; 2 stories; 56x36 ft.; paper, tar and gravel roof; hot air heat; Hy Schamberg, Jr., Archt., 3631 Connecticut St., St. Louis; owner builds.

Mo., St. Louis—Adolph H. Wedig, 4575 Adelaide St., will erect 2 brick tenements 5020-5024 W. Florissant St.; total cost \$30,000; 2 stories; 32x51 ft.; composition roofs; hot air heat; C. Laidig, Archt., 4351 DeSoto St., St. Louis; owner builds.

N. C., Charlotte—Louis H. Asbury, Archt., is preparing plans for residence for Walter Davidson.

N. C., Charlotte—Louis H. Asbury, Archt., has completed plans for residence for J. P. Gibbons.

N. C., Charlotte—Louis H. Asbury, Archt., has completed plans for residence for Dr. Parks M. King.

N. C., Raleigh—V. M. Townsend, P. O. Box 1112, is receiving prices on material for 2-story residence; cost \$10,000.

Tenn., Jasper—J. W. Morrison will erect 15 dwellings.

Tex., Brenham—Theodore Gilbert will erect residence.

Tex., Dallas—W. F. Baker will erect \$10,000 residence, 3615 Overbrook St.; 8 rooms; brick veneer.

Tex., Dallas—C. M. Walton will erect \$15,000 residence, 4911 Munger St.; 10 rooms; brick veneer.

Tex., Dallas—Dr. Homer Donald has started construction of Colonial type brick residence, N. Ewing Ave.; cost \$20,000; W. H. Reeves, Archt., Dallas.

Tex., San Antonio—Jeremiah Rhodes opened bids Nov. 5 to remodel residence on

Mistletoe Ave.; cost \$12,000 to \$17,000; contract not let; Phelps & DeWees, Archts., Gunter Bldg., San Antonio.

Va., Pulaski—Pulaski Home Building Corp. will erect 14 dwellings.

W. Va., Bluefield—Virgie H. Anderson will erect two \$8000 dwellings on Mercer St.

W. Va., Bluefield—Mercer Home Building Co. will erect 3 brick dwellings on Circleville St.; cost about \$8000 each.

Government and State

Ark., Marianna—Postoffice — Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until Dec. 5 for construction of 1-story, brick and tile, non-fireproof postoffice building, approximately 62x64 ft.; drawings and specifications from Custodian at site or from office of Supervising Archt.

Tenn., Chattanooga—Armory—City, Emil Wassmann, Commr. of Public Utilities, Grounds and Buildings, rejected bids and has postponed construction of armory for National Guard Cavalry Squadron. (Lately noted.)

Hospitals, Sanitariums, Etc.

Ala., Birmingham—Robert E. Lee Klan No. 1, Knights of Ku Klux Klan, Thos. Shirley, Pres., purchased site and is reported to erect either \$250,000 hospital or klavern.

Ark., Booneville—Belle Point Lodge No. 20, A. F. & A. M. Fort Smith, Dr. Jas. A. Foltz, Chmn., Bldg. Comm., and other Masonic bodies will erect \$50,000 to \$60,000 tubercular hospital at State Tuberculosis Sanatorium; 42x62-ft. administration building with two 25x30-ft. ward buildings, containing 13 rooms to accommodate 2 patients each; hollow tile and stucco; 2 complete toilet and bath rooms in each ward building; Haralson & Nelson and A. Klingensmith, Archts., Fort Smith, have completed preliminary plans and work will probably begin soon.

Ala., Mobile—Treasury Dept., Jas. W. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until December 17 for remodeling, changes, etc., at U. S. Marine Hospital; specification and drawings from Custodian at site or from office Supervising Archt.

D. C., Washington—Department of Interior, F. M. Goodwin, Asst. Sec., will receive bids in duplicate until Dec. 18 for erection and completion of 7 bungalows at St. Elizabeths Hospital; plans and specifications from office of Chief Clerk, Dept. of Interior.

Fla., Ocala—Railroad Man's Country Club, Inc., J. E. Venters, Shelbiana, Ky., Seey-Treas., will establish sanitarium on 500-acre tract acquired at Proctor on Orange Lake, Marion County, 18 miles north of Ocala. (See Buildings Proposed—Miscellaneous.)

La., Elizabeth—Industrial Lumber Co. has begun work on rebuilding Elizabeth Hospital destroyed by fire; main building 2 stories, with 1-story cottage annex.

La., Minden—Webster Parish Medical Society and Wiley-Pevy Post, American Legion, are interested in erection of sanitarium.

Md., Baltimore—Johns Hopkins Hospital, Dr. Winford H. Smith, Supt., will receive bids through Jos. Evans Sperry, Archt., Calvert Bldg., Baltimore, until Nov. 28 for erection of power house to serve hospital, Medical School and School of Hygiene; 152x140 ft.; 2 stories; brick; slag roof; following contractors estimating: Fraunie Bros. & Haigley, 19 W. Franklin St.; Consolidated Engineering Co., Calvert Bldg.; Cogswell-Koether Co., 406 Park Ave.; Chas. L. Stockhausen Co., Inc., Gay and Water Sts.; Geo. A.

Fuller Co., American Bldg.; Benj. F. Bennett Building Co., 123 S. Howard St.; M. A. Long Co., Horn Bldg., Guilford and Fayette Sts.; John Hiltz & Sons Co., 343 St. Paul Place; West Construction Co., American Bldg.; Morrow Bros., Fidelity Bldg.; Henry Smith & Sons Co., 7 E. Redwood St.; all Baltimore; Hegerman-Harris Co., 185 Madison Ave., New York. (Lately noted.)

Miss., Sanatorium—Forrest County Board of Supervisors, Herbert Gillis, Clk., Hattiesburg, Miss., will receive bids until December 5 for construction and entire completion (including heating, plumbing and wiring), of hospital pavilion (to be known as Forrest County Pavilion) on grounds of Mississippi Tuberculosis Sanatorium; cost \$12,000; plans and specifications on file at office Chancery Clk., Hattiesburg, and may be secured from Robt. E. Lee, Archt., Hattiesburg (Lately noted.)

N. C., Hendersonville—Patton Memorial Hospital is having plans made for \$10,000 addition.

N. C., Morganton—Bldg. Comm., State Hospital, Dr. John McCampbell, Supt., will receive bids until Nov. 24 at Charlotte, N. C., for following: Item No. 1 will include power house building, cost about \$50,000, 48 x 122 x 40 ft., brick and concrete; concrete floors; concrete and Barrett roof; ventilators, steel sash and trim, also chimney and machinery foundations, together with concrete pipe tunnels, etc.; Item No. 2 will include construction of radial brick stack on foundation furnished by owners; Item No. 3 will include hand stokers for four 300 h. p. boilers; drawings and specifications from Wiley & Wilson, Consil. Engrs., Lynchburg, Va., and on file at office Dr. McCampbell; will purchase equipment later. (Lately noted.)

S. C., Charleston—City will convey 50-acre tract at Cherokee Place to Charleston County Tuberculosis Assn. provided the Assn. will erect tuberculosis camp to accommodate 25 within 1 year.

Tex., Carlsbad—State Tuberculosis Sanatorium near Carlsbad will soon erect dormitory for women; accommodate 25.

Tex., Colorado—Dr. C. L. Root, Dr. P. C. Coleman and others plan to organize stock company and erect and equip fireproof sanatorium on site of present Colorado Sanatorium; cost not less than \$20,000.

Tex., San Antonio—Woodmen of the World reported to have selected Leo M. J. Dielman, San Antonio, to prepare plans for \$250,000 hospital building to be erected to right of present structure; will also immediately construct 6 additional ward rooms, 16x21 ft., and install passenger elevator; bids about Dec. 1.

Hotels and Apartments

Ark., Little Rock—St. Louis Hotel Co., Props., Jefferson Hotel, St. Louis, is reported to erect \$1,500,000 hotel; 14 stories.

Fla., Fort Lauderdale—Tarpon Bend Hotel Co. postponed indefinitely erection of \$400,000 hotel; Pfeiffer & O'Reilly, Archts., Lemon City, Fla. (Lately noted.)

Fla., St. Petersburg—J. and B. Landrum, Mgrs. of the Fifth Ave. Hotel at the corner of Fifth Ave. north and Seventh St., will remodel and erect 2 stories.

Fla., West Palm Beach—O. P. Gruner plans the erection of a 2 or 3-story hotel on Clematis Ave.; 50x153 ft.; fireproof.

Ga., Arlington—B. A. Garrett will erect hotel in connection with poultry farm, dairy farm, a livestock farm and a pleasure resort.

La., New Orleans—Guaranty Development

Co., Inc., Granville Sewell, Advertising Mgr., has plans by Toledano, Wogan & Bernard and Favrot & Livaudas, associated for erection of 600-room addition to Hotel Roosevelt; formerly Hotel Grunewald; Rudolph Herpitch, conslt. engr., and Perry L. Moses, conslt. decorator; bids to be received in March.

N. C., Charlotte—Dellinger & Winchester will erect apartment house on East Blvd.; cost \$18,500; brick veneer; F. L. Bonfoey, Archt., Charlotte.

N. C., Hickory—Chamber of Commerce, J. A. Moretz, campaign director, is promoting erection of \$250,000 hotel; Thirteenth St. and Eleventh Ave.; fireproof; 100 rooms.

N. C., Raleigh—Rev. R. W. Bailey will erect a 3-story apartment house on Blount and Edenton Sts.; 70x110 ft.; 6 apartments of 5 rooms each.

S. C., Union—Union Hotel Co., W. S. Nicholson, Pres., will receive bids until Dec. 11, to erect Hotel Fairforest; 5 stories; 78x79 ft.; reinforced concrete frame with fireproof partitions; tar and gravel roof on concrete; brick walls; face brick and limestone trim; tile and marble work; ornamental plaster; elevator; plans and specifications at office of Jones & Trott, Inc., Arcents, Greenville, S. C., Columbia, S. C., Charlotte, N. C., Atlanta, Ga., and Chattanooga, Tenn. (Lately noted, to open bids Dec. 4.)

Tenn., Knoxville—The St. James Inc., has been formed and proposes to enlarge the St. James Hotel by the addition of 2 stories and a roof garden; officers elected are: N. B. Kuhlman, Pres.; C. F. Maples, Secy.; Jno. L. Greer, Treas.; Chas. D. Little, Mgr.

Tenn., Memphis—Southern Hotel Co. (W. T. Halliday and associates) will receive bids until Dec. 17 through Walter W. Ahlschlager, Archt., 65 E. Huron St., Chicago, Ill., to erect hotel Peabody on Union Ave.; cost \$3,500,000; 324x170 ft.; 12 stories; hollow fireproof and interior tile; reinforced concrete; gravel roof; cement and hardwood floors; plaster board; metal ceilings and doors; vaults; mail chutes; ventilators; ornamental terra cotta; steel sash and trim; wire glass; low pressure steam heat; direct current, 3-200 K. W. generators; electric elevators; contractors bidding: Kaucher-Hedges Co. and James Alexander Constr. Co., both of Memphis, Guager-Korsmo Co., St. Paul, Minn.; B. & W. Constr. Co. and Pachen Constr. Co., of Chicago, Ill.; Foundation Co. of America of Atlanta and New York, and Westlake Constr. Co., St. Louis. (Lately noted.)

Tenn., Memphis—Reinshagen estate is having plans prepared by Henry J. Kramer, Archt., Memphis, for the erection of a 100-room hotel to be called the "Auditorium," cost about \$225,000.

Tex., New Braunfels—Bids will be called for within the next 2 weeks for the 6-story fireproof hotel, 96x150 ft., estimated to cost \$250,000 for the New Braunfels Hotel Co.; F. G. Blumberg, Chmn. Building Comm.; Herbert S. Green, Archt., Alumni Bank Bldg., San Antonio.

W. Va., Charleston—R. R. Payne will erect a 3-suite apartment house at 1307 Virginia Ave.; cost \$28,000; 3 stories; brick, concrete and tile.

W. Va., Charleston—Harris P. Wolfberg, manager and part owner of the Capitol Theatre recently destroyed by fire announces that rebuilding of a new theatre will start at once; seating capacity between 1500 and 1800.

W. Va., Martinsburg—Mrs. Florence Schobe will rebuild and equip the Colonial Inn; 80 rooms; several apartments and 4 store rooms.

W. Va., Martinsburg—New Hotel Holding Corp. has acquired the Blondel corner, Queen

and Martin Sts., as a possible site for a hotel.

W. Va., Williamson—Williamson Community Hotel Corp., W. A. Wilson, Chmn., is promoting erection of a 150-room hotel; cost about \$425,000; Meanor & Handloser, Huntington, are preparing preliminary plans.

Miscellaneous

D. C., Washington—Museum—J. F. Duhamel, Washington Loan & Trust Bldg., chmn. and comm., representing Association of Oldest Inhabitants, Columbia Historical Society and Society of Natives, is promoting erection of \$75,000 building.

Florida—Clubhouse—The Railroad Man's County Club, Inc. has been organized largely by workers of the Chesapeake & Ohio R. R. with following officers: J. S. Burdette, 604 Washington Ave., Huntington, W. Va., Pres.; C. B. Scott, Ashland, Ky., Vice-Pres.; E. J. Bryan, Jacksonville, Fla., Vice-Pres. and Genl. Mgr.; J. M. Harrold, Russell, Ky., Chmn. of Bd.; J. E. Vinters, Shelbiana, Ky., Secy. Treas.; have acquired tract of 500 acres on Orange Lake, Marion County, Fla., located at Proctor, 18 miles north of Ocala; property of D. H. Irvine; mansion will be converted into club house for occupancy; in addition to hunting and fishing preserves golf course will be built as well as a sanitarium.

Fla., Key West—Club House—Key West Country Club will erect a club house on the municipal golf links; Robert Spotswood, Judge Henry W. Taylor, State Senator Wm. H. Mallone and J. Lancelot Lester interested.

La., Monroe—Club house—Country Club is having plans prepared by J. W. Smith, Monroe, for the erection of a club house on Cole's Island; Southern colonial style; living room, ball room, club rooms on either side, bowling alleys, lockers, etc.; contract for caddy house has been let to Allen Constr. Co., Monroe.

La., Monroe—Orphanage—Louisiana Baptist Orphanage will receive bids until Nov. 24 on revised plans for the erection of Baptist Orphanage; J. W. Smith, Archt., Monroe; cost \$125,000; contractors estimating: J. V. Wev., F. Masing, McMichael Constr. Co., A. & M. Constr. Co. and J. W. Black. (Lately noted.)

Mo., Butler—Club house—Butler Country Club, W. W. Cannon, G. P. Wyatt and S. S. Wolf, building committee, have completed plans for club house and will soon let contracts.

Mo., Maryville—Club House—Board of Directors of the Country Club plan the erection of a new club house; Siemans & Arnold, Archts., St. Joseph, Mo.

S. C., Greenville—Educational Center—Phyllis Wheatley Assn., Thomas F. Parker, Pres., will erect 3-story building to contain auditorium, class room and assembly room.

Tenn., Knoxville—Bus Terminal Bldg.—Clyde McCoy, M. A. Morgan and T. A. McMillan interested in promoting erection of bus terminal building on Church St.; 4 stories, 2 floors for commercial purposes, to include waiting rooms, restaurant, stores, etc.; R. F. Graf & Sons, Archts., Knoxville.

Tenn., Lafollette—Club house—Coal & Iron Workers Benefit club, Harry Noyes, Pres., will erect a club house.

Tex., Dallas—Arcade—W. R. Searcy, Greenville and Henderson Ave., East Dallas, will soon let contract for the erection of arcade building; cost \$30,000; 116x122 ft.; Spanish mission type; building will house grocery store, delicatessen, meat, tea and coffee shops, etc.; Flint & Broad, Archts., Dallas.

Va., Heathsville—Clubhouse—Benj. Dennis, Pres. of Dennis Auto Supply Co., and

Dennis Oil Co., of Richmond, who recently purchased from J. O. Barracq, of Robley, a tract of 20 acres, will erect club house.

Railway Stations, Sheds, Etc.

Ark., Newport—Missouri Pacific R. R., E. A. Hadley, Ch. Engr., St. Louis, plans to erect passenger station; cost \$70,000; brick.

Fla., Groveland—Atlantic Coast Line Rwy. Co., J. E. Willoughby, Ch. Engr., Wilmington, N. C., reported to build new station here.

Tex., Houston—Southern Pacific Lines, H. M. Lull, Ch. Engr., will expend over \$25,000 for the improvement and enlargement of depot.

Schools

Ala., Jasper—D. J. Nowlin, of Falls City, and others are interested in the erection of a new hospital building there through state and county aid.

Fla., Avon Park—City has proposition from bond company to purchase \$50,000 of \$65,000 bonds recently voted; plans to borrow additional money necessary and erect new school. Address Supt., W. A. Marshall.

Fla., Bushnell—Bushnell Dist. voted \$25,000 bonds for school building.

Fla., Jay—Town plans to sell \$28,000 bonds to erect brick high school; R. H. Hobbs, Santa Rosa County Board of Education, Milton.

Fla., Miami—City will vote on \$350,000 bonds to erect 3 schools and one addition. Address The Mayor.

Fla., Molino—Escambia County Board of Public Instruction, Dr. R. E. Watson, plans the erection of a new school; cost between \$15,000 and \$20,000.

Fla., Munson—Town voted \$15,000 bonds to erect school; R. H. Hobbs, Santa Rosa County, Supt. of Education, Milton.

Fla., Orlando—Sexton J. Johnson, Supervising Principal of Public Schools, has plans for new high school building in formative stage. (Lately noted.)

Fla., Oxford—Plans are afoot for voting on bond issue to build school.

Fla., Sanford—School Board of Seminole County, Sanford, will receive bids until Dec. 4 for the furnishing of material and construction of two schools; one at Geneva and the other between Longwood and Altamonte Springs; sub-contracts invited; E. J. Moughton, Archt., Sanford; address T. W. Lawton, Supt. Public Instruction, Sanford.

Fla., Tavares—School Trustees and citizens of Tavares, Eustis and Mount Dora, have approved of erection of a centrally located high school; steps will soon be taken to select a suitable site and find means of building the school.

Ga., Hephzibah—The following contractors are estimating on \$75,000 school for which bids are to be opened Dec. 3: Howell Constr. Co., C. E. Holley, Holley Constr. Co., Schuevers & Anderson, all of Augusta; J. B. Mobley, Waynesboro, Ga.; Jno. T. Ragan Co., Vidalia, Ga.; C. H. Van Ormer, Savannah, Ga.; Foundation Co. and Flagler Co., Atlanta, Ga.; A. E. Ittner, Albany, Ga.; C. O. Smith & Co., Hazelhurst, Ga.; W. L. Ragland & Sons, Richmond, Va.; and J. F. Dupree Sons Co., Rome, Ga.; fireproof and semi-fireproof; hollow fireproof and interior tile; tar and gravel roof; wood floors; Warren-Webster vapor heat; plans and specifications at office of Willis Irvin, Archt., Lamar Bldg., Augusta. (Lately noted.)

Ga., Waycross—City, Dan T. Cowart, Mayor, voted \$125,000 school bonds. (Lately noted.)

Ky., Louisville—Southern Baptist Theological Seminary, Dr. E. Y. Mullins, Pres., will expend \$3,500,000 for the erection of 7 or 8 new buildings; plans are completed for Norton Hall, the first unit, which will be erected on Cherokee Drive at a cost of \$750,000; construction of a dormitory with central unit 3 stories high and 2 wings, 2 stories high will follow; Jas. Gamble Rogers, 307 Lexington St., New York City, Archt., and Arthur Loomis, Associate Archt., Louisville.

La., Alexandria—Alexandria School Dist. No. 1 voted \$1,250,000 bonds. Address J. W. Bolton, Pres., School Board.

La., Hall Summit—J. W. Smith, Archt., Monroe, is preparing plans for the erection of a 12-room school building; cost \$50,000; brick.

La., New Orleans—Board of Education will open bids on Dec. 12 for erection of the proposed Capdau School Building at Franklin, Lotus and Jonquil Sts.; cost about \$175,000; 3 stories; 108x172 ft.; E. A. Christy, Archt., New Orleans.

La., New Roads—Bids will be opened December 4 (extended date) by the Pointee Coupee Parish School Board, A. McFarland, Secy., for 2-story brick school; cost \$85,000, 123x105 ft., 14 rooms, composition roof, wood and tile flooring, low pressure steam heat; Wm. R. Burk, Archt., Balter Bldg., New Orleans. Contractors bidding on work: Albert Toole, Hammond, La.; W. A. Prather, Baton Rouge, La.; R. J. McBride, Baton Rouge, La.; Corbin & Kitteringham, Napoleonville, La. (Lately noted.)

Md., Baltimore—School Board approved request of Wilmer A. Dehuff, Principal of the Polytechnic Institute, for 200 additional lockers.

Miss., Biloxi—City voted \$110,000 school bonds. Address School Board. (Lately noted.)

Miss., Darling—C. O. Pfeil, Memphis, is preparing plans for erection of consolidated school; cost \$40,000; brick; fireproof.

Mo., Joplin—Board of Education plans to erect 3 junior high schools.

Mo., Mt. Washington—Board of Education, Jas. B. Jackson, Secy., will open bids for the erection of an addition to the Mt. Washington School at Independence and Arlington Aves.; 2 stories and basement containing sewing and luncheon rooms, open air rooms, seven class rooms, domestic science room, manual training room, branch library, kindergarten and gymnasium.

N. C., Burgaw—Pender County Board of Education will receive bids until Nov. 26 for the erection of two 2-story brick and frame school buildings to be erected in Atkinson and Long Creek; L. N. Boney, Archt., Wilmington, N. C. (Lately noted to open bids Oct. 18.)

N. C., Charlotte—County Board of Education will borrow \$30,000 from the State for the erection of a school in the Dixie-Big Springs school district; 10 class rooms and auditorium.

N. C., Shelby—County Board of Education approved application from Piedmont district for \$30,000 from the Special Building Fund for the erection of a brick school building.

Okla., Bristow—City voted \$135,000 bonds for new high school building at election held Nov. 7.

S. C., Aiken—Plans will be ready in 30 days for a negro school building of 8 rooms and auditorium, plans by Jas. J. Baldwin, Archt., of Gaffney and Anderson; Prof. W. J. McGarity, Supt. City Schools.

S. C., Columbia—Chicora College has plans on file at the Columbia Builders' Exchange for the erection of a 2 family apartment

house, arranged in flats having a living room, dining room, 2 bedrooms, sleeping porch and a bath; brick veneer on hollow building tile; slate roof; steam heat; Wilson & Berryman, Archts., Wilson and Gastonia, N. C. and Columbia, S. C.

S. C., Greenville—J. E. Sirrine & Co. give further details regarding Parker High School, bids for which will be received about Jan. 1st, as follows: 65x218 ft., 3-stories, brick and wood, composition roof, wood and concrete floors, steam heat; cost about \$135,000; for Trustees Parker District. (Noted Nov. 10.)

S. C., Rock Hill—Board of Trustees of the Rock Hill school district will erect a school building north of Confederate Park; 2 stories; brick.

Tenn., Memphis—Southwestern University, S. W. McGill, Chmn. Building Comm., will construct 3 dormitories, dining hall, kitchens, president's house and a tower after plans by Henry Hibbs, Archt., Nashville; concrete with rubble stone exterior.

Tex., Austin—Executive committee of the statewide Presbyterian movement for Christian education announces that \$160,000 out of campaign fund will be appropriated for suitable plants and church work for Presbyterian students attending state institutions; this includes \$100,000 for building at Austin near State University, \$40,000 for a plant at A. & M. College, remainder will be used at Denton, San Marcos, Huntsville and Commerce.

Tex., Beaumont—School Dist. No. 3 (Amelia) votes Nov. 24 on \$20,000 bonds to erect \$18,000 white and \$2000 colored schools. Address Jefferson County Board of Education.

Tex., Cameron—City, J. B. White, Mayor, will vote not later than December 15 on \$150,000 bonds to erect 2 schools.

Tex., Camp Wood—Will N. Noonan, 240 Moore Bldg., San Antonio, advises bids will be received in about 60 days for structure for Camp Wood Independent School District, costing \$14,000, 5 rooms and auditorium, metal ceilings, plaster board, ventilators, rolling partitions, stone and frame, composition roofing, pine floors, jacketed stoves. (Noted Nov. 8.)

Tex., Houston—The Sisters of Charity of the Incarnate Word will erect training school for nuns at the southwest corner of the Telephone Cut-Off Road and Wayside Drive; cost \$50,000; main building 3 stories, 60x275 ft., with a 60-ft wing; chapel 150x50 ft.; central heating and lighting plant; laundry building; construction work will start after January 1; plans by Maurice Sullivan, Archt., Houston.

Tex., Knippa—The School Board is having plans prepared by Henry T. Phelps, Archt., Hicks Bldg., San Antonio, for the erection of school building.

Tex., Lamesa—School Board plans to erect high school; election soon on \$75,000 bonds.

Tex., Muleshoe—Dist. No. 3, Bailey County, plans to issue \$13,000 bonds to erect brick and concrete school. Address County Board of Education.

Tex., San Antonio—Kenneth Wimer, promoter of Woodlawn Place, west of Beacon Hill, will erect a \$10,000 brick school building to be leased by the Board of Education; 82x150 ft.

Tex., San Marcos—School Board petitioned Mayor and City Commrs. to submit \$200,000 bond election to erect schools.

Tex., Shamrock—Shamrock Independent School District, C. L. Clement, Secy., will receive bids until Dec. 1 for erection of brick school building; E. A. Eads, Archt.,

417 First Bank Bldg., Chickasha, Okla.

Tex., Slaton—Board of Education will open bids about Jan. 20 to erect \$90,000 school; 3 stories; brick, stone and reinforced concrete; composition roof; wood and cement floors; hollow fireproof tile; interior tile; metal ceilings; steel sash and trim; ventilators; vaults vapor steam heat, \$15,000; E. F. Rittenberry, Archt., Amarillo. (Lately noted.)

W. Va., Huntington—Board of Education, Huntington Independent District, Jno. G. Graham, Supt., will receive bids until Dec. 10 (extended date), to erect Douglass school building; 14 class rooms; domestic science and art room, gymnasium and auditorium; W. F. Deihl, Archt., Robson-Pritchard Bldg., Huntington. (Lately noted.)

W. Va., Kingmont—Board of Education of Union District, A. D. Brill, Secy., will receive bids until Dec. 1 to erect a 1-story school building; 24x28 ft., stone foundation, frame construction, asbestos roof, outside finish, 6 inch siding; plans and specifications may be seen at office of M'ss Clara Wilson, county supt. schools, in Court House.

W. Va., Morgantown—West Virginia University will launch campaign to raise \$500,000 for stadium; Dr. L. C. White, Pres. of Alumni Assn., Gen'l. Chmn. of Comm.; A. Brooks Fleming, Jr., of Fairmont, Consolidation Coal Co., will direct campaign and building of structure; seating capacity at least 33,000; plans are being prepared by Gavin Hadden, Archt., New York. (Lately noted.)

Stores

Ark., Forrest City—Vaccaro-Drobmeyer Co. is having plans prepared by Jas. L. Gatling, Archt., Memphis, Tenn., for the erection of a 2-story brick store building; cost about \$25,000; 109x150 ft.; reinforced concrete construction; cement floors, composition roof.

Ga., Augusta—Following contractors estimating on 4-story store building for G. B. White & Co. for which bids are to be opened Dec. 4; C. H. Van Ormer, Savannah, Ga.; Gude & Co., Foundation Co., Flagler Co., all Atlanta, Ga.; King Lumber Co., Charlottesville, Va.; W. L. Ragland & Sons, Richmond, Va.; Lawrence Construction Co., Augusta; plans by Willis Irvin, Lamar Bldg., Augusta, include 70x271 ft.; steel frame; wood joists; tar and gravel roof; wood floors; Warren-Webster vapor heat; 1 freight, 2 passenger elevators. (Lately noted.)

La., New Orleans—Dixie Tire Co., J. F. Kirwin, Pres., will build a modern battery, tire and gas service station at 819-27 Howard Ave.

Md., Baltimore—J. Marshall Melvin, has purchased the Strand Theater, 404-6 N. Howard St., from Cleveland R. Bealmeir, and plans remodeling into a store; Spencer E. Sisco, Archt., Continental Bldg.

Md., Salisbury—Feldman Bros. acquired large building on Dock St. and will remodel.

Mo., Albany—Townsend Wholesale Grocery Co. is planning erection of a store on the southeast corner of the square; 2 stories, 60x100 ft., hollow tile, walls with cement finish.

Mo., Chillicothe—O. P. Clark plans rebuilding Henrietta Bldg.; recently destroyed.

Mo., Springfield—John P. Kreider will build business house in the 400 block of Traffic Ave.

Okla., Tulsa—S. H. Kress and Co. purchased building at 216 S. Main St. adjoining present Kress Bldg.; reported will raze both buildings and erect 4-story structure with 65 ft. frontage.

S. C., Greenville—W. T. Grant Co., 28 W. Twenty-third St., New York City, who have leased from Mrs. Mamie P. Browning a building will make extensive alterations after plans by A. F. Evans, archt., 28 W. Twenty-third St.; non-fireproof, metal ceilings, maple floors, interior tile, metal doors.

Tex., Plainview—N. R. Northcutt purchased site on N. Broadway St. and will erect store and office building.

W. Va., Charleston—C. K. Payne will erect commercial building on the north side of Virginia St. between Columbia and Pennsylvania Aves.; cost \$13,000; 1-story; brick and concrete.

W. Va., Fairmont—Max Baer acquired property at 601 to 605 Fairmont Ave. and will convert into stores with living apartments above. The building recently acquired at Second St. and Fairmont Ave. will be remodeled for department store, to be conducted by the Home Furniture Co.

Theatres

Fla., Avon Park—F. E. Williamson is establishing moving picture theater here and will install \$1400 projector and \$6500 Fotoplayer pipe organ.

Ga., Waycross—A. R. Hood and L. B. Harrell had plans prepared by Greeley & Benjamin, Archts., Jacksonville, for the erection of a 4-story building to house a theatre and several stores.

Va., Martinsville—Rives Brown will begin erection of theater on Main St.; colonial design with seating capacity of 500.

Warehouses

Ala., Birmingham—Harris Transfer & Warehouse Co., 29 N. Nineteenth St., have purchased property facing 2 blocks on Thirteenth St. and bounded by Avenue B. and L. & N. R. R. as site for large commercial warehouse; first unit will be started as soon as archt. completes plans; brick, steel and reinforced concrete, fireproof, estimated to cost \$300,000.

Ky., Newport—Dixie Home Builders, F. A. Gastright, Pres., 315 York St., will erect \$10,000 supply house; fireproof.

La., New Orleans—Woodward, Wight & Co. purchased \$250,000 site at Constance and St. Joseph Sts. and plans to erect 2-story, fireproof storage building; 300x150 ft.; Emile Weil, Archt., New Orleans, wired Manufacturers Record: "Nothing definite; no plans yet prepared." (Lately noted.)

Md., Salisbury—Mayor and City Council proposed to erect storage building for machinery and street equipment.

N. C., Charlotte—Smith-Wadsworth Co. is having plans prepared for the erection of warehouse.

Tex., Dallas—A. L. Black, 2615 Elm St., will erect addition to warehouse; cost \$24,000.

erect \$32,000 residence; 42x87 ft.; brick and hollow tile, hardwood and concrete floors, slate roof, ventilators, heating let under separate contract; Pringle & Smith, Archts., Atlanta.

Ga., Macon—Mrs. Maud G. Comer is erecting \$50,200 residence, Vineville and Pio Nono Aves., after plans by Happ & Shelverton, Fourth National Bank Bldg., Macon; 12 rooms; brick and hollow fireproof tile; hardwood floors; slate roof; vaults; ventilators; heating, \$3000; contract let Sept. 1 to W. F. Thames, 38-3 Fourth Nat. Bank Bldg.; H. E. Lowe Electric Co., electric lighting, both Macon. (Lately noted.)

La., New Orleans—Greater New Orleans Homestead Assn. will erect \$13,500 triplex dwelling, Carondelet and First Sts.; H. Robinovitz, Contr., New Orleans.

Md., Baltimore—W. Albert Johnson, Calvert Bldg., will erect 2-story frame shingle residence and garage, S. E. cor. Falls and Harvest Rds.; cost \$12,000; 35x33x18 ft.; slate roof; hot water heat; Chas. M. Rock, Contr., 2222 Walbrook Ave., Baltimore.

Md., Baltimore—Stephen P. Harwood, 10 E. Lexington St., will erect 5 two-story brick dwellings, N. E. cor. Baker and St. Stephen Sts.; two 15x48x25 ft. and three 22x32x25 ft.; steam heat; slag roof; Jas. K. Harwood, Archt., same address; owner builds.

Mo., Clayton (Ind. Branch St. Louis)—F. H. Ringers, Claytonia Drive, will erect \$18,000 brick residence, block 12, Moorlands; 42x28 ft.; Aug. Bruenschlag, Contr., 5961 Kermery St., St. Louis.

N. C., Greensboro—J. Robt. Holt, 904 Oakland Ave., let contract Oct. 15 to J. L. Crouse, Greensboro, for erection of \$12,993 residence; 11 rooms and 2 baths; brick veneer; concrete, hardwood and rift pine floors; steam heat, \$1200; electric lights, \$100, fixtures to be added; Luther Alberson, Archt., Greensboro. (Lately noted.)

N. C., Salisbury—White McCubbin Co., David White, Pres., will erect number of dwellings in connection with residential development in North Salisbury; frame; shingle roofs; C. P. Foster and S. P. Foster, Contrs., Salisbury.

S. C., Bishopville—J. M. Hearon let contract to J. M. Lawton, Florence, S. C., for erection of \$40,000 residence; brick and wood, oak floors, green tile roof, hot water heat; J. Carroll Johnson, Archt., Columbia, S. C. (Lately noted.)

S. C., Columbia—Mrs. O. A. Burnside let contract to J. C. Heslep, Columbia, for 2-story brick veneer residence; slate roof, hot air heat; Lafaye & Lafaye, Archts., Columbia. (Lately noted under S. C. Shandon.)

Tex., Del Rio—C. M. Yates, Jr., let contract to H. M. Hutchison, Del Rio, to remodel 1-story frame rooming house and erect second-story addition; 22 bed rooms; cost \$13,000; Morris & Noonan, Archts.-Engrs., Houston Bldg., San Antonio. (Lately noted.)

Tex., Houston—W. C. Buschart will erect \$20,000 residence, 915 Lovett Blvd.; 12 rooms; brick veneer; L. W. Lindsay, Contr., Houston.

Va., Warrenton—Gen. James Buchanan, U. S. A., retired, will erect \$50,000 residence in Fauquier County near Warrenton; tile and stucco; Clarence L. Harding, Archt., 729 15th St., N. W., Washington, D. C.; E. C. Heflin, Contr., Fredericksburg, Va.

Hospitals, Sanitariums, Etc.

Mo., St. Louis—Alexian Bros. Hospital will alter 5-story brick hospital, 3941 S. Broadway; cost \$10,000; Richard E. Schmidt, Garden & Martin, Archts., 104 S. Michigan

BUILDING CONTRACTS AWARDED

Association and Fraternal

Ark., Little Rock—Ancient Free and Accepted Masons let contract to W. H. Lamberson for erection of \$18,000 building, 3rd and Willow Sts.; 2 stories; brick; stores on ground floor, lodge room above.

Bank and Office

Fla., Sarasota—Chas. Ringling is erecting \$30,000 bank building adjoining Sarasota Theatre; 50x51x22 ft.; Carman Construction Co., Contr., Sarasota.

Mo., Kansas City—Mrs. Rodella Dwight Lease, Jos. A. Bruening, representative, Dwight Bldg., let contract to Pratt-Thompson Construction Co., Kansas City, for erection of 13-story office building, 10th and Wyandotte Sts., for use of Board of Trade; cost \$1,250,000; 142x145 ft.; 156,000 sq. ft floor space; H-shape; concrete construction; brick, stone and terra cotta finish; hollow fireproof and interior tile; concrete floors; metal doors; vaults; mail chutes; wire glass; Philippine mahogany interior finish; steam heat; 7 elevators; McKecknie & Trask, Archts., 710 Gloyd Bldg., Kansas City. (Lately noted.)

Va., Bristol—Remington & Sherman Co., Philadelphia, Pa., have contract to install and equip vault in bank building.

Churches

N. C., Durham—Temple Baptist Church let contract to Thompson & Canady, Durham, for erection of \$17,000 Sunday school addition; 60x60 ft.; 2 stories and basement. (Previously noted.)

Tex., Austin—First Church of Christ, Scientist, let contract to A. L. Mundt, Austin, for erection of \$10,000 building, 14th and Colorado Sts.; auditorium to seat 400 to 500; Hugo Kuehne, Archt., Austin.

City and County

Mo., Laddonia—Memorial Building—Audrain County let contract to F. M. Brashears, Laddonia, to erect Soldiers, Sailors

and Marines Memorial Building; cost about \$10,000; brick, concrete and wood; wood floors; asbestos shingle roof; Earl Hawkins, Archt., Springfield, Mo. (Lately noted.)

Mo., Linn—Courthouse—Osage County, H. M. Lueckenhoff, County Clk., let contract to McCarthy Construction Co., St. Louis, Mo., for main portion of courthouse to replace burned structure; cost \$44,332, exclusive of partitions and finishings; fireproof; concrete and brick; concrete floors; H. H. Hohenschild, Archt., Odd Fellows Bldg., St. Louis. (Lately noted.)

Mo., St. Louis—Primate House—Zoological Board of Control, Fred W. Pape, Pres., let contract to John Hill Construction Co. for erection of 2-story primate house at Zoological Park, installing plumbing and drainage, heating and ventilating system and electric wiring; cost \$151,760; brick; terrazzo tiling and cut stone floors; 35x16-ft. central steel cage with smaller steel cages around room on first floor. (Lately noted.)

Dwellings

Fla., Nokomis—Nokomis Realty Co. let contract to John Perkins to erect number of dwellings in connection with land development; cost \$4000 to \$6000; stucco on wood and hollow fireproof tile; 36x24 ft.; hard pine floors; tin and paper roofs; plaster board; ornamental terra cotta; steel sash and trim; wire glass; electric lights. Address E. W. Nash, Nokomis. (Previously noted.)

Fla., Weirsdale—Ralph W. Stearns will erect number of dwellings in Weirsdale and Leesburg (lately noted in part); slate shingle roofs; yellow pine floors; hollow fireproof tile; metal ceilings; plaster board; plans and construction by owner. (See Machinery Wanted—Hardware; Building Material; Electric Fixtures; Plumbing Fixtures.)

Ga., Atlanta—R. H. White, 134 Myrtle St., let contract October 24 to Chas. Wm. Bernhardt, 174 Hunniet St., Atlanta, to

Ave., Chicago, Ill.; Katerman Building & Construction Co., Contr., St. Louis.

Tenn., Memphis—Board of Managers of Methodist Hospital, Rev. L. H. Estes, Sec., let general contract to Estes-Williams-Ragsdale Co., at \$230,824 for erection of fireproof hospital, Bellevue Blvd. and Union Ave.; let plumbing and sewerage work and furnishing kitchen equipment to J. W. Hull Plumbing & Heating Co., at \$45,880; Jos. Fowler Electric Co., wiring, \$9795; Clears Floor & Screen Co., screen doors, \$1693; all Memphis; Peters-Eichler Heating Co., 1516 Pine St., St. Louis, Mo., high pressure steam and vacuum return system of heat, \$31,237; structure to be 4 stories; 235x46-ft.; 1-story wing, 48x8-ft.; reinforced concrete and dark brick; concrete and terrazzo floors; tar and gravel roof; hollow fireproof and interior tile; plaster board; metal doors; vaults; vault lights; mechanical ventilators; ornamental terra cotta; steel sash and trim; wire glass; tar and gravel roof; 2 passenger elevators and electrical dumb waiter; furnishings about \$65,000; W. F. Shulz, Archt., Shrine Bldg., Memphis. (Lately noted.)

Hotels and Apartments

Fla., Camp Walton—W. B. Harbeson awarded contract to C. A. Fulghum, Pensacola to remodel and erect 48-room addition to Hotel Harbeson; cost \$50,000; separate contracts for heating, plumbing and wiring.

Fla., Miami—Lauderdale Beach Hotel Co., C. A. Roberts, Pres., R. B. Roberts Jr., Vice-Pres., both of the Roberts Realty Co. of Miami; and M. M. Borchardt, Secy. and Treas., Miami, has let contract for the erection of a hotel to George Jahn, Contr., Miami; 54 rooms; concrete and stucco; cost \$175,000; Spanish renaissance type; August Geiger, Archt., Miami.

Mo., St. Louis—Dougherty-Sheehan Real Estate Co. has started work on a 3-story apartment and store building, south side of Clayton Road between deMun and Yale Aves.; plans by Walter F. Sheehan, Archt., call for eight 5-room suites of efficiency type, four 4-room suites and six 3-room suites; facade of brick, trimmed with cut stone and terra cotta; financed by M. A. Rust & Son Real Estate Co.

N. C., Charlotte—W. C. Harry let contract to E. J. Beery, Charlotte to erect apartment house at Hawthorn Lane and Eighth St.; cost \$29,750; 2 stories; 45x77 ft.; 32 suites; brick veneer and frame; built-up tar and gravel roof; interior tile; hardwood floors; metal doors; ventilators; steel sash and trim; wire glass; heating \$3000; M. R. Marsh, Archt., 224 Latta Arcade, Charlotte. (Lately noted.)

N. C., Charlotte—N. L. Graham awarded contract to Southeastern Construction Co., for the erection of a 4-family apartment house at 609 Kinston Ave.; 2 stories; 16 rooms; brick veneer construction.

Tex., Houston—Sub contract has been awarded to DeBarden Electric Co. for the apartment of Ben Cohn, 1815 Crawford St., of frame, brick veneer, tar and gravel roof, oak floors, steam heat, 47x72 ft.; Alfred C. Finn, Grogan Bldg., Archt., and L. C. Perry, 89 Rosalie St., Gen. Contr., noted Nov. 8.

Miscellaneous

La., New Orleans—Sun Porch—La. Retreat has awarded contract to Geary-Oakes for improvements costing \$15,000 at 962 Henry Clay St.; Paul Landry, Archt.

Railway Stations, Sheds, Etc.

Ark., Bald Knob—Missouri Pacific Rwy. Co., E. H. Hadley, Ch. Engr., 1035 Rwy. Exchange, St. Louis, Mo., let contract to J. J. Wuellner & Son, Alton, Ill., for 1-story brick passenger station, 24x160 ft.

Mo., Crane—Missouri Pacific R. R., E. A. Hadley, Ch. Engr., St. Louis, has completed plans to rebuild station destroyed by fire; cost \$11,500; Jos. E. Nelson & Son, Contrs., 3240 S. Michigan Ave., Chicago. (Previously noted.)

Schools

Fla., Tallahassee—Florida State College for Women let contract to C. A. Fulghum, Pensacola, to erect unit of library building; cost \$75,000; Edwards & Sayward, Archts., 609 Chamber of Commerce Bldg., Atlanta. (Previously noted.)

Ga., Rome—West Rome School District, Sam Hancock, chmn. bldg. com., let contract to O. W. McCurry, Rome, for the erection of a 1-story, brick and tile, stucco school building; cost \$26,000; 7 rooms; 3 acre lot; concrete sidewalks, paved streets, sewer, light and water connections, lockers; Lockwood & Poundstone, Archts., Atlanta.

Ky., Lexington—University of Kentucky awarded contract Oct. 29 to Blanchard Building Co., Dayton, Ohio, for the erection of basket ball and gymnasium building; 102x186 ft.; 10 ft. basement and 24 ft. hall and playing floor; concrete basement with bricks above; 3 ply built-up asphalt roofing; maple and birch hardwood floors; conduit heating system; ventilators; steel sash and trim; A. O. Whipple, Archt., University of Kentucky, Lexington. (Lately noted.)

La., Baton Rouge—Louisiana State University, A. L. Himes, Secy., let contract to Caldwell Bros., 816 Howard Ave., New Orleans, for the erection of a Memorial Campanile; cost \$85,000; 40x120 ft. by 185 ft. high; fireproof, promenade tile roofing, terrazzo tile flooring; heating, \$10,000 and lighting not in general contract; Theo. C. Link, Archt., Baton Rouge. (Deceased) Address A. L. Himes.

Mo., Gilman City—Gilman City School District, O. I. Oliphant, Secy., has awarded contract to C. C. Ebbe, Contr., Trenton, Mo., for the erection of a school building; cost \$60,000; 78x107 ft.; semi-fireproof; tar and gravel roof; wood floors; hollow fireproof tile; heating and plumbing, \$10,000; R. H. Sanneman, Archt., 519 Lee Bldg., Kansas City. (Lately noted.)

N. C., Asheville—County Board of Education awarded contract to L. L. Merchant, for the erection of additions to Grace High School; cost \$67,808; additions will include auditorium, gymnasium and class rooms.

N. C., Fayetteville—Colored State Normal School awarded contract on Oct. 23, to Reinecke Constr. Co., Inc., Fayetteville, for the erection of 3 frame residences and 3 brick buildings; cost \$85,000; Winthrop tapered asphalt shingle roofing; cement, tile, oak, rift pine hardwood floors; interior tile; steel sash and trim; Holmes Electric Co., Fayetteville, contr. for wiring, \$1015; Jas. A. Slater, Archt., Raleigh, N. C. (Lately noted.)

N. C., Vanceboro—Board of Education let contract for electrical work on new school building to City Electric Co., Wilmington

S. C., Gaffney—Contracts have been awarded for the Gaffney grade school building, Jas. J. Baldwin, Archt., Anderson and Gaffney, as follows: V. I. Spurgeon, gen. contract., and T. J. Cagle, plumbing and heating, both of Gaffney; A. Brill Electric Co., Spartanburg, electrical work; contracts total \$70,500.

Tenn., Chattanooga—Board of Education, Fred B. Frazier, Chmn. of Board, let contract to A. F. Hahn, 45 Chamberlain Bldg., Chattanooga, for the erection of a colored school; cost \$30,240; app. 40x100 ft.; brick; stand-

ard felt and gravel roof; pine floors; Crutchfield & Gosnell, Archt., Volunteer Bldg., Chattanooga. (Lately noted.)

Tenn., Memphis—Board of Education, L. C. Humes, awarded contract to D. D. Thomas & Co., Memphis, for the erection of 12-room addition to Florida St. negro school; cost about \$45,000; fireproof; brick; steel floor joists; concrete and wood floors; Anker F. Hansen, Archt., Memphis; Rhodes Bros., heating; J. W. Hull, plumbing; Standard Electric Co., electric work; all Memphis.

Tex., Dallas—Board of Education let following contracts to erect schools: Vickery Place School, Henderson and Lawrence Aves.; Thomas & Yarbrough, Contrs.; cost \$98,377; reinforced concrete, frame and brick; hollow fireproof tile; metal doors; ventilators; interior tile; Barrett roof; wood and linoleum floors; Wallace Plumbing Co., steam heat, at \$11,365; Dixieland Electric Co., plumbing, \$1362; C. D. Hill & Co., Archts., 801 Central Bank Bldg., Dallas; Fair Park School; W. H. King, Contr.; cost \$50,000; 8 rooms; brick and stone; H. A. Overbeck, Archt.; addition to Robert's School, East Grand and Fitzhugh Sts.; H. T. Apple, Contr.; 9 classrooms and auditorium; 3 stories; stone, brick and reinforced concrete; Flint & Broad, Archts.; all Dallas; (Lately noted.)

W. Va., Bluefield—Board of Education of Beaver Pond District awarded contract to H. A. Lucas, Bluefield, for the erection of a graded school on Preston St.; cost about \$68,000; 90x90 ft.; brick walls and frame partitions, built-up roofing, wood over joists and concrete flooring and composition over concrete and steel joists; Garry & Sheffey, Archts., Bluefield, W. Va. (Lately noted.)

Stores

Ark., Little Rock—W. J. Cotten & Sons, 5219 H Ave., have contract to erect building for 4 stores, 616 Beech St.; 100x100 ft.; mill construction; Jno. P. Almand, Archt., Little Rock. (Lately noted under Motors.)

Ark., Paris—E. Baerlocher has begun construction of 2-story business building with offices above adjoining Commercial Hotel; 75 ft. front, stone, brick and steel, with provisions for adding 3rd floor; Jno. Freeze, contr. for stone and brick work.

Fla., Bradenton—J. K. Singletary let contract Oct. 25 to T. W. Hullinger & Son, Bradenton, to erect \$18,000 store; 40x104 ft.; hollow tile; built-up roof; cement floors; electric lights; Otis elevator; Frank Winn, Jr., Archt., Tampa. (Lately noted.)

Fla., Jacksonville—Thomas Cusack Co. let contract to O. P. Woodcock; Jacksonville, to erect \$100,000 building on Riverside Ave.; 1-story; 165x100 ft.; brick; Zimmerman, Sach & Zimmerman, Archts.; R. G. McBride, Consulting Archt., Chicago.

Fla., New Smyrna—E. L. McAuley has let contract to Fiveash & Meares for the erection of a brick building on Canal and Chestnut Sts.; 24x60 ft.; store room on ground floor and rooms above.

Fla., Sarasota—Senator Tom Campbell has awarded contract for the erection of a business block on Main St.; five stores on ground floor and apartments above; cost \$30,000.

Fla., Tallahassee—William C. Hodges has let contract to Child Bros., for the erection of a 4-story store and office building at Monroe and Pensacola Sts.; \$60,000; face brick and stucco construction with terra cotta cornice work.

Md., Baltimore—Virginia Dare Co., 309-11

N. Howard St., let contract to Jno. Maich, 3903 Calloway Ave., Baltimore, to remodel and erect 2-story addition to store building; cost \$25,000; addition 33x65 ft.; W. H. Emory, Archt., 615 Munsey Bldg., Baltimore.

Mo., St. Louis—Dougherty-Sheehan Real Estate Co. has started work on a 3-story apartment house and store building. (See Contracts Awarded—Hotels and Apartments.)

N. C., Durham—Duke Land & Improvement Co. let contract to Durham Constr. Co., for the erection of an addition to store for stock drugs and sundries; cost about \$10,000; 2 stories; 40x90 ft.; brick; cement flooring; construction started.

Tenn., Huntsville—Foster Block, Dr. J. L. Foster will rebuild \$10,000 structure lately noted burned; 60x62 ft.; 2 stories; brick; electric lights; E. G. Foster, Contr., Huntsville; Glass (Fronts and Windows). See Machinery anted. Address Foster Block.

Tenn., Memphis—J. S. Ballard let con-

tract to S. Malkin, to erect 1-story brick addition at 304 Monroe St.

Tex., Amarillo—Details of contracts for the tire service station and store bldg. of J. A. Dunnivan, 601 Madison St., 60x70-ft., brick, plate glass front, tar and gravel roof, cement floor, are as follows: Finklea Electric Co., wiring; Roy Beckwith, plumbing; C. E. Sherer, cement work; J. A. Fowlkes, genl. contractor; Keer & Walsh, Archts.

Tex., Houston—F. C. Moore will erect a 2-story brick veneer building with 2 store rooms on first floor and 17 lodging rooms above at 3907 Harrisburg Blvd.; cost \$18,500; Home Builders Co., Contrs.

Tex., Houston—T. E. Swann has plans by and let contract to C. B. Schoeppl & Co., San Antonio, to erect \$40,000 building; 3 stories and basement; 60x100 ft.; semi-mill construction; gravel roof; wood floors; elevators, \$5000. (Lately noted.)

Tex., Marshall—J. C. Penny Co. has awarded contract to Joe Pressler, Contr., for the extension of building 25 ft. from the rear end of store.

Warehouses

Ky., Murray—Dark Tobacco Growers Cooperative Assn., Hopkinsville, Ky., let contract Oct. 15 to A. Y. Bailey & Son, Chapel Hill, Tenn., to erect warehouse, lately noted; cost \$29,226; 208x256 ft.; wood frame on concrete piers, metal siding; 7-course asphalt roof; pine floors; all contracts let but siding; Manley & Young, Archts., Knoxville, Tenn., and Hopkinsville. (See Machinery Wanted—Corrugated Siding.)

Va., Richmond—The Otis Elevator Co. has awarded contract to the Jno. T. Wilson Co. for the erection of a 2-story office and warehouse on Second Ave. between Main and Franklin Sts.; cost \$100,000.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Badges, etc.—Dr. M. E. DuBissette, Sec., Knights of King Solomon, Wilson, N. C.—To correspond with manufacturers of badges, aprons, etc.

Barber Clippers (Hand and Electric).—J. H. Sumner, 627 West 35th St., Norfolk, Va.—To correspond with manufacturers of hand and electric barber clippers, of Baltimore, Md., and Philadelphia, Pa.

Bins (Overhead).—See Sand Dredging Equipment.

Boiler (Horizontal Tubular).—D. C. Elphinstone, (Machinery Dealer) 408 Continental Bldg., Baltimore, Md.—One horizontal tubular boiler, 72-in. diam., 18 ft. long provided with brackets to rest on brick work, 125 lbs. pressure, A. S. M. E.; state price, shop number and location for inspection.

Boilers.—See Mechanical Equipment.

Boilers.—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase two 100 h. p. boilers or equivalent; prefer used equipment.

Boilers, etc.—North Carolina College for Women, J. I. Foust, Pres., Greensboro, N. C.—Bids until Dec. 4 to furnish and erect four 500 b. h. p. water tube type of high pressure boilers and four multiple retort underfed stokers at the college; Clyde R. Place, Consit. Engr., Grand Central Terminal, New York City.

Books.—W. S. Cawthon, Sec., and State Supt. of Public Instruction, Tallahassee, Fla.—Bids until Dec. 10 to furnish to the schools for the State of Florida for a period of eight years, from July 1, 1924; books required in the course for the first eight grades of school.

Bridge.—Johnson County, Cleburne, Tex. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—State Highway Comm., Frankfort, Ky. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—Polk County, Bartow, Fla. Details under Construction News—Road and Street Construction.

Bridge.—Georgetown County, Georgetown, S. C. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—Hampton County, Hampton, S. C. Details under Construction News—Road and Street Construction.

Bridge.—Noxubee County, Macon, Miss., will build 2 bridges. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge.—State Road Comm., Charleston,

W. Va., will build 17 bridges. Details under Construction News—Bridges, Culverts, Viaducts.

Bridge Approaches.—Escambia County, Pensacola, Fla. Details under Construction News—Bridges, Culverts, Viaducts.

Brooders.—See Incubators, etc.

Brooms.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Nov. 26 to furnish 10,080 corn brooms, delivery to Depot Quartermaster, foot of Snyder Ave., Philadelphia, Pa. Sch. 229.

Bucket Elevator.—Hackley Morrison Co. Inc., (Mchly. Dealers), 1708 Lewis St., Richmond, Va.—To purchase belt bucket elevator, 24-in. about 50-ft. centers.

Building Material.—Chas. L. Stockhausen Co., Inc., Gay and Water Sts., Baltimore, Md., is estimating on erection of 2-story, 152x140 ft. power house for Johns Hopkins Hospital and desires sub-bids and estimates until Nov. 27 on features of work.

Building Material.—J. B. Watson, Furman, Ala.—Building material for residence, including metal roofing, doors, etc.

Building Material.—Ralph W. Stearns, Weirsdale, Fla.—Wall board and composition slate shingles and roofing.

Canning Plant Equipment.—H. B. Scott, Box 603, Rocky Mount, N. C.—Prices and data on cooking ovens, fireless cookers, electric driven meat choppers, canning machines, etc., for small canning plant, to probably include canning of meat; correspond with manufacturers.

Canning Plant Machinery.—A. R. Davis, Harriman, Tenn.—Data and prices on machinery for canning plant.

Cars.—Pennsylvania Equipment Co. (Mchly. Dealers) Norwood Station, Penna.—To purchase approximately 25 cars for haulage of beets.

Cars (Quarry).—Hackley, Morrison Co. Inc., (Mchly. Dealers), 1708 Lewis St., Richmond, Va.—100 steel end dump stone quarry cars, about 1½ or 2-yd. capacity.

Cast Iron Pipe.—City of Laurinburg, N. C. Details under Construction News—Water Works.

Catalogues.—J. B. Watson, Furman, Ala.—Catalogues on house furnishings.

Choppers (Meat).—See Canning Plant Equipment.

Cold Storage Plant.—Geo. L. Colburn, Sec., Rotary Club of Lake City, Lake City, Fla.—To correspond with manufacturers of cold storage plants, capacity of about four

cars, to maintain about 34 degrees; to be used in pre-cooling truck shipments.

Composition Roofing.—See Building Materials.

Concrete Handling Equipment.—Hackley Morrison Co., Inc., 1708 Lewis St., Richmond, Va.—To purchase six concrete carts.

Condenser.—Yadkin Gravel Co., Lilesville, N. C.—One service condenser suitable for triple expansion steam engine from 60 to 80 h. p., together with air pump; state make, condition, size, cylinder stroke and price.

Containers (Tin and Glass).—H. B. Scott, Box 603, Rocky Mount, N. C.—Prices on empty tin cans and glass jars for canning plant.

Corrugated Siding.—A. Y. Bailey & Son, Chapel Hill, Tenn.—178 squares of 1¼ in. corrugated 26 gauge siding for warehouse at Murray, Ky.

Crane (Locomotive).—D. C. Elphinstone, (Mchly. Dealers) 408 Continental Bldg., Baltimore, Md.—One bucket handling locomotive crane, 8 wheel, 15-20 ton, 50 ft. boom; state price, shop number and location for inspection.

Crusher.—O. Bohm, Welch, W. Va.—One small crusher to crush coke cinders for cinder blocks and cinder block machines.

Crushers.—Hackley Morrison Co., Inc., (Mchly. Dealers), 1708 Lewis St., Richmond, Va.—To purchase two gyratory crushers, sizes No. 4, No. 5, No. 6 or No. 7½.

Dredging.—United States Engineer Office, Wilmington, N. C.—Bids until Dec. 10 to dredge in Inland Waterway, Beaufort to Jacksonville, N. C.

Dragline Machines.—Hackley Morrison Co. Inc., (Mchly. Dealers) 1708 Lewis St., Richmond, Va.—To purchase two Bucyrus dragline machines one No. 175 with 125 ft. boom and one No. 225 with 150-ft. boom.

Dry Kiln Equipment.—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase complete dry kiln equipment; prefer used machinery.

Electric Fixtures.—Ralph W. Stearns, Weirsdale, Fla.—Electric fixtures for dwellings.

Electric Light Wiring, etc.—See Mechanical Equipment.

Electric Magnet.—Pennsylvania Equipment Co., (Mchly. Dealers) Norwood Station, Pa.—To purchase one second-hand outfit for the operation of a 45-in. magnet on a locomotive crane, about 7½ K. W.

Elevator (Portable).—Blue Ridge Talc. Co., Inc., Henry, Va.—To purchase portable ele-

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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vator suitable for unloading coal from hopper cars.

Engines (Hoisting).—Port Commrs., Suite 200, New Orleans Court Bldg., New Orleans, La.—Bids until Nov. 30 to furnish hoisting engines for use at Coal Handling Plant; plans with Supvr. of Purchases, 1 Canal St.

Engine (Steam).—Yadkin Gravel Co., Lilesville, N. C.—One compound or triple expansion steam engine, second hand from 60 to 80 h. p., Marine type engine will be satisfactory; state condition, size, make and price.

Engine, etc.—U. S. Engineer Office, Huntington, W. Va.—Bids until Dec. 19 to furnish and deliver Diesel engine with electric generator, propulsion motor and control equipment for same, for towboat Kanawha.

Engines.—See Mechanical Equipment.

Excavating.—Clarence E. Ridley, City Mgr., Coal & Coke Bldg., Bluefield, W. Va. Bids until Nov. 20 for excavation of approximately 4000 cu. yds. from old City hall site, Bland and Ramsey Sts.

Excelsior Machinery.—Steiner Branch, Grovetown, Ga.—To correspond with manufacturer of excelsior making machinery.

Engine.—Alex. M. Robinson, (Mchly. Dealers) Box 935, Welch, W. Va.—Dealers prices on one 300 h. p. Sterling gasoline, 8 cylinder engine; used equipment; must be ready to operate; delivery Kentucky.

Engines.—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase one 125 h.p. and one 15 h.p. steam engine; prefer used equipment.

Filter Plant.—City of Laurinburg, N. C. Details under Construction News—Water Works.

Fire Fighting Equipment.—City of Vicksburg, Miss., J. J. Hayes, Mayor—Bids until Dec. 17 for one triple combination fire hose wagon and pumper.

Fireless Cookers.—Canning Plant Equipment.

Fuel Oil.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Dec. 8 to furnish fuel oil for period beginning Jan. 1, 1924 ending Dec. 31, 1924.

Garage Equipment.—Universal Motor Corporation, J. H. Shaheen, Williamson, W. Va.—Prices on complete garage equipment.

Generator (Electric).—See Engine, etc.

Generators.—See Mechanical Equipment.

Glass. (Fronts and Windows).—Foster Block, Dr. J. I. Foster, Huntsville, Tenn.—Glass fronts and windows.

Glass Containers.—R. J. Flint, 513 Lamont St., Johnson City, Tenn.—To purchase glass containers with air tight tops for horseradish; correspond with manufacturers.

Hardware.—Ralph W. Stearns, Weirsdale, Fla.—Hardware for dwellings.

Heating and Ventilating Systems.—See Mechanical Equipment.

Heating Plant.—J. B. Watson, Furman, Ala.—Warm air heater with pipes.

Hinges (Toilet-seat).—The Stryker Kot-N-Wood Products Co., Memphis, Tenn.—To correspond with manufacturers of or dealers in toilet-seat hinges; to purchase in quantities.

Hotel and Restaurant Supplies.—Henry Silver, Southern Pines, N. C.—To correspond with manufacturers of or dealers in hotel and restaurant supplies.

Ice Machine.—Southeastern Industrial Sales Agency, High Point, N. C.—Prices on 6 ton ice machine including installation.

Incubators, etc.—G. S. Harben, 1510 Mat-

thews Terrace, Portsmouth, Va.—Prices on mammoth incubators and brooders.

Laundry Equipment.—Frank Purcell, Charlotte, N. C.—Data and prices on laundry equipment; correspond with manufacturers.

Laundry Plant.—A. B. Crouch, Pres., The Tennessee National Bank, Johnson City, Tenn.—Data on the erection of laundry buildings of steel construction.

Laundry Supplies.—Indian Creek Co., Inc., Branchville, Md.—Data and prices on laundry supplies.

Levee Construction.—Board of State Engrs., New Orleans, La. Details under Construction News—Miscellaneous Construction.

Locomotives (Gas or Electric).—Pennsylvania Equipment Co. (Mchly. Dealers) Norwood, Station, Penna.—To purchase one or more gas or electric locomotives for use in connection of approximately 15 mi. of rail-way.

Mechanical Equipment.—Board of Education, B. M. Milligan, Commr., of School Buildings, St. Louis, Mo.—Bids until Dec. 5 to furnish for William Beaumont High School (including construction of building) the following equipment; plumbing, sewer-ing and gas fittings complete; heating and ventilating apparatus, including air washer, heat, regulation and ozone apparatus; boilers; engines and generators; vacuum clean-ing system; switchboard; and electric light wiring and fixtures, clocks, bell and telephone systems.

Metal Roofing.—J. B. Watson, Furman, Ala.—See Building Material.

Millwork.—J. B. Watson, Furman, Ala.—See Building Material.

Millwork, etc.—J. H. Sumner, 627 West 35th St., Norfolk, Va.—To correspond with millwork manufacturers and planing mills, of Baltimore, Md., and Philadelphia, Pa.

Miscellaneous Supplies.—Supply Division, U. S. Veterans Bureau, 736 Arlington Bldg., Washington, D. C.—Bids until Dec. 12 on large quantities of used material, including old iron and metals, standard gauge locomotive, automotive equipment and parts, road scraper and tractor, miscellaneous old machinery, plumbing and building supplies, and equipment, surgical instruments, X-ray equipment, etc. situated at U. S. Veterans Rehabilitation Center, Federal Park, Maryland (railroad station Perryville); specifications on file or with Community Manager at Federal Park.

Miscellaneous—Supplies.—Panama Canal, A. L. Flint, General Purchasing Office, Washington, D. C.—Bids until Dec. 1 to furnish: Burial caskets; glass (window, maze, wire ribbed and polished plate); files; twist drills; reamers; stocks and dies; taps; band saws; hacksaw blades; extension ladders; cotton packing; asbestos gaskets and linoleum. Blank forms and information (Circular 2330) on application to offices of Panama Canal, Asst. Purchasing Agts. at Fort Mason, San Francisco, Cal.

Motor.—Hackley Morrison Co., Inc. (Mchly. Dealers) 1708 Lewis St., Richmond, Va.—To purchase one 75 h. p., 3 phase, 60 cycle, A. C. motor, 220-44-volt to 2200 volt, 1800 RPM.

Motor.—See Engine, etc.

Ovens (Cooking).—See Canning Plant Equipment.

Overall Making Machinery.—T. W. Watson, Louisburg, N. C.—To purchase machinery to make overalls; correspond with manufacturers.

Paving.—City of Richmond, Va. Details under Construction News—Road and Street Construction.

Paving.—Board of Education, Oklahoma

City, Okla. Details under Construction News—Road and Street Construction.

Paving, etc.—City of Sherman, Tex. Details under Construction News—Road and Street Construction.

Paving, etc.—City of Enid, Okla. Details under Construction News—Road and Street Construction.

Paving, etc.—City of Montgomery, Ala. Details under Construction News—Road and Street Construction.

Pipe.—W. C. Johnson, Archt., Critz, Va.—To purchase 10,000 ft. of 1-in. galvanized iron pipe, also 40 ft. of 2-in. 40 ft. of 3-in. and 20 ft. of 4-in. iron threaded water pipe; state price delivered.

Pipe (Cast Iron) and Specials.—Board of Awards, F. A. Dolsfield, Register, Baltimore, Md.—Bids until Nov. 28 to furnish and deliver cast iron pipe and special castings to the Highways Engr. Department; B. L. Crozier, Highways, Engr.

Pipe Covering and Plaster.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Nov. 27 to furnish 5800 ft. magnesia insulating pipe covering, various sizes and 20 bags of asbestos plaster; delivery Post Quartermaster, Quantico, Va.

Pipe Line.—See Sand Dredging Equipment.

Planing Mill Equipment.—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase the following used equipment; one high speed planer and matcher; one self feed rip saw; two 2 haw lumber trimmers.

Plumbing, etc.—See Mechanical Equipment.

Plumbing Fixtures.—Ralph W. Stearns, Weirsdale, Fla.—Plumbing fixtures for dwellings.

Press (Hydraulic Wheel).—Hackley Morrison Co., Inc. (Mchly. Dealers) 1708 Lewis St., Richmond, Va.—One second-hand hydraulic wheel press of 100 to 150 ton capacity, for Virginia delivery.

Pump (Water) Outfit.—See Smoke Stack, etc.

Pulleys and Shafting.—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase pulleys and shafting; prefer used equipment.

Railroad Supplies.—Norfolk & Western Railway Co., J. H. Clemmitt, Purchas'ng Agent, Room 351, N. & W. Ry. Bldg., Roanoke, Va.—Bids opened Nov. 21 for 12,000 steel switch plates, Contr. Ser. No. AA 276; 12 C. S. truck bolsters, Contr. Ser. AA 277; 550 C. C. side frames, Contr. Ser. AA 278.

Rails (Steel).—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase steel rails, prefer used equipment.

Refrigerating Plant.—J. F. Ivey, Mgr., Farmers' Dairy Products Co., San Marcos, Tex.—Prices on 6 ton refrigerating plant.

Refrigerators.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Nov. 30 to furnish 8 refrigerators, delivery to Depot Quartermaster, 36 Annie St., San Francisco, Cal.

Road.—Anderson County, Palestine, Tex., will improve 2 roads. Details under Construction News—Road and Street Construction.

Road.—Hudspeth County, Sierra Blanca, Tex. Details under Construction News—Road and Street Construction.

Road.—Palo Pinto County, Palo Pinto, Tex. Details under Construction News—Road and Street Construction.

Road.—State Highway Comn., Frankfort, Ky., will improve 2 roads. Details under Construction News—Road and Street Construction.

Road.—State Highway Comn., Frankfort,

Ky., will build 4 roads. Details under Construction News—Road and Street Construction.

Road.—Johnson County, Cleburne, Tex. Details under Construction News—Road and Street Construction.

Road.—Lavaca County, Hallettsville, Tex. Details under Construction News—Road and Street Construction.

Road.—State Road Comm., Charleston, W. Va. Details under Construction News—Road and Street Construction.

Road.—Travis County, Austin, Tex. Details under Construction News—Road and Street Construction.

Road.—Charlotte County, Punta Gorda, Fla. Details under Construction News—Road and Street Construction.

Road.—State Road Comm., Charleston, W. Va., will build 14 roads. Details under Construction News—Road and Street Construction.

Road.—State Road Comm., Charleston, W. Va., will build 11 roads. Details under Construction News—Road and Street Construction.

Road.—State Road Comm., Charleston, and Upshur County, Buckhannon, W. Va. Details under Construction News—Road and Street Construction.

Road.—State Road Dept., Tallahassee, Fla., will build 8 roads. Details under Construction News—Road and Street Construction.

Road.—Polk County, Bartow, Fla. Details under Construction News—Road and Street Construction.

Road.—Falls County, Marlin, Tex. Details under Construction News—Road and Street Construction.

Road.—Hampton County, Hampton, S. C. Details under Construction News—Road and Street Construction.

Road.—Spartanburg County, Spartanburg, S. C. Details under Construction News—Roads and Street Construction.

Road.—Warren County, Vicksburg, Miss. Details under Construction News—Road and Street Construction.

Roofing (Corrugated Iron).—Manly Jail Works, Dalton, Ga.—Prices on 150 squares of galvanized corrugated roofing, No. 22 gauge sheets 8 to 10 ft. long; prompt delivery.

Sacks (Meal).—John H. Boushall, Raleigh Savings Bank and Trust Co., Raleigh, N. C.—To correspond with manufacturers of meal sacks.

Sand Dredging Equipment.—Campbell-Coxe Co., C. W. Campbell, Mgr., Box 1322, Asheville, N. C.—Data and prices on 8-in. centrifugal dredge; overhead bins; pipe line etc.

School Supplies, etc.—Board of Awards, Frederick A. Dolfield, Register, City Hall, Baltimore, Md.—Bids until Nov. 28 for equipment tools and supplies for the Department of Education; John H. Roche, Sec. Board of School Comms.

Screen (Revolving).—Hackley Morrison Co., Inc. (Mehy. Dealers), 1708 Lewis St., Richmond, Va.—To purchase revolving screen 48 to 60-in. diam., 20-ft. long.

Sewer Construction.—Louisiana State University, Baton Rouge, La., R. L. Hines, Sec. Building Committee. Details under Construction News—Sewer Construction.

Sewers.—City of Montgomery, Ala. Details under Construction News—Road and Street Construction.

Shades (Doors and Window).—Board of Awards, F. A. Dolfield, City Register, Baltimore, Md. Bids until Nov. 28 for furnish-

ing, erecting and entire completion of shades for windows and doors for Baltimore Hospital, for communicable diseases, North of Lake Montebello; F. J. Crowther, Inspector of Buildings.

Shoes.—Marine Corps, Quartermaster Dept., Washington, D. C.—Bids until Nov. 27 to furnish 50,000 prs. of russet shoes, various sizes, delivery to Depot Quartermaster, 1100 S. Broad St., Philadelphia, Pa. Sch. 227.

Shore Protection.—Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids until Nov. 28 for timber and riprap shore protection at the Naval Academy (High Power Radio Station), Annapolis, Md.; drawing and specification No. 4917 on file or with Supt. of Naval Academy.

Smoke Stack, etc.—City of Canton, Miss., W. M. Reid, Supt. of Water and Light Plant, invites bids on smokestack for power plant, also a shallow well, 10-12-in. about 390 to 400 ft. deep and pumping outfit complete for said well.

Sprinkler System.—M. H. Dixon, Pres. Edenton Warehouse Corp., P. O. Box 173, Edenton, N. C.—In market for sprinkler system to be installed in warehouse building, 120x60 ft., used for storage of cotton, peanuts, etc.

Steel Cage Jail Cells.—Frank E. Tomlinson, Mayor, Zephyrhills, Fla.—To correspond with manufacturers of steel cage jail cells.

Steel Hull Boat.—U. S. Engineer Office, Huntington, W. Va.—Bids until Dec. 10 to furnish and deliver steel hull maneuver boat, etc., for Dam No. 32, Ohio river.

Stokers.—See Boilers, etc.

Telephone System.—See Mechanical Equipment.

Towboat (Stern-Wheel Steel).—Office of First and Second Mississippi River Dists., 1006 McCall Bldg., Memphis, Tenn.—Bids until Dec. 19 to furnish one stern-wheel steel towboat.

Trackage.—Pennsylvania Equipment Co. (Mehy. Dealers) Norwood Station, Penna.—To purchase approximately 15 mi. of light portable or industrial railway.

Transmission Line.—City of Laurinburg, N. C. Details under Construction News—Water Works.

Trucks (Lumber).—Barnesville Planing Mill Co., Barnesville, Ga.—To purchase lumber trucks; prefer used equipment.

Vacuum Cleaning System.—See Mechanical Equipment.

Wall Board.—See Building Materials.

Water Tank and Tower, etc.—Town of Eagle Lake, Fla., D. M. Delk, Clk.—Bids until Nov. 23 for 50,000 gal. capacity steel water tank, tower and distribution system.

Water Distribution System.—See Water Tank and Tower, etc.

Water Works.—City of Laurinburg, N. C. Details under Construction News—Water Works.

Well and Pumping Outfit.—See Smoke Stack, etc.

Financial News

New Financial Corporations

Fla., Babson Park—Babson Park State Bank, capital \$20,000, incorporated with E. L. Wirt, Pres.; H. E. Fairchild, 1st V.-P.; F. J. Keiser, 2nd V.-P.; C. W. Lawrence, Cash.

Fla., Daytona—Selden-Keating Investment Co., cap'tal \$2500, incorporated by R. L. Selden, Cochrane Keating and J. R. Selden.

Fla., Macclenny—J. D. Dugger, Macclenny, Joe Jones and Jno. Burnett, Sanderson, and others are organizing bank to be known probably as Citizens Bank of Baker County.

Fla., Orlando—Florando Securities Co., capital \$25,000, incorporated with F. E. Baxter, Pres.-Treas.; Paul T. Davis, Sec.

Fla., West Palm Beach—City Bond Co., 705 Citizens Bank Bldg., capital \$500,000, incorporated with C. J. Ohmer, Pres.; L. J. Weadock, Sec.-Treas.

Ga., Atlanta—Atlanta Building and Loan Assn., capital \$50,000, incorporated by J. W. Harrell, T. R. Richey, M. J. Brooks and others.

Ga., Savannah—J. Clark Rowland & Co., Inc., 16 E. Bryan St., incorporated with J. Clark Rowland, Pres.-Treas.; Geo. Cope, V.-P.-Sec.

Mo., St. Louis—Marquette Finance Corp., capital \$200,000, chartered with P. J. Kinsella, Pres.; C. Leonard Snell, Sec.

Okl., Chelsea—Chelsea Investment Co., capital \$30,000, incorporated by J. M. Sharp, N. I. McHenry and J. B. Parks, all Chelsea.

Okl., Oklahoma City—Halsell-Wilson Brokerage Co., capital \$25,000, incorporated by Louis D. Halsell, Frank M. Wilson and Harold H. Halsell.

S. C., Clio—Bank of Commerce, capital \$25,000, incorporated with J. C. Covington, Pres.; J. C. Covington, Jr., V.-P.; J. L. Bennett, Jr., Cash.

Tenn., Knoxville—Carlo C. Campbell, Assistant Manager, Board of Commerce, writes Manufacturers Record: "I regret very much indeed that the plans for the establishment of this association did not materialize, although, it seemed almost absolutely certain at the time announcement was made. (Lately noted promoting organization of \$10,000,000 to \$30,000,000 building and loan association.)

Tex., El Paso—Mutual Co., capital \$20,000, incorporated by T. V. Neal, Nora E. Neal and A. W. Embry.

Tex., Fort Worth—Tillar Fidelity Co., capital \$100,000, incorporated with R. H. Wolfe, Pres.; J. G. Tillar, V.-P.; Idee T. Allen and others. (Lately noted.)

Tex., Miles—Miles National Bank, I. W. Bruce, Pres., and associates, organized with \$50,000 capital, under name of Guaranty State Bank.

Va., Suffolk—Suffolk Insurance Corp., capital \$25,000, incorporated with R. B. Hill, Pres.; B. F. Parker, Sec.; Jno. M. Butler, all of Suffolk.

W. Va., Dunbar—Kanawha Valley Insurance Agency, capital \$50,000, incorporated by O. H. Reed and Reva Reed, Charleston; Roy Reed, Blanche Reed and L. V. Wolfe, Dunbar.

W. Va., Elkins—Citizens National Bank, capital \$100,000, is being organized by H. G. Kump.

W. Va., Charleston—West Virginia Assn. of Insurance Agents, Inc., incorporated by R. R. DeVa, Charleston; C. I. Thornburg, Huntington; A. B. White, Jr., Parkersburg, and others.

New Securities

Ala., Eufaula—School—City, T. C. Doughtie, Clk., will receive bids until Dec. 11 for \$90,000 5½% bonds; \$500 denom.

Ala., Montgomery—Highway—State will sell \$14,000,000 highway bonds. Address Governor Brandon.

Ala., Montgomery—Refunding—Board of

Comms. authorized issuance of \$250,000 bonds and will sell at private sale Dec. 1 to Caldwell & Co., Nashville.

Ala., Sheffield—Public Improvement—City Commissioners sold \$22,000 bonds.

Ark., Jonesboro—Drainage—Craighead County Comms. sold \$125,000 bonds for constructing drainage ditch in vicinity of Bay.

Ark., Little Rock—Street—M. W. Elkins & Co., purchased \$85,000 5½% District No. 35 bonds at 97.30.

Fla., Bartow—Highway—Polk County will vote Dec. 15 on \$3,360,000 bonds. Address County Comms.

Fla., Boynton—Town, J. C. Powell, Clk., will receive bids until Nov. 27 for \$85,000 6% bonds.

Fla., Frostproof—Municipal Improvement—City voted \$300,000 bonds for street paving, erection of city hall, extension of water mains and floating indebtedness. (Lately noted.)

Fla., Jay—School—Town plans to sell \$28,000 bonds to erect school; R. H. Hobbs, Santa Rosa County Supt. of Education, Milton.

Fla., Miami—Schools—City will vote on \$350,000 bonds to erect 3 schools and one addition. Address The Mayor.

Fla., Munson—School—Town voted \$15,000 bonds to erect school; R. H. Hobbs, Santa Rosa County Supt. of Education, Milton.

Fla., Orlando—Indebtedness—City Commissioners plan to vote Dec. 20 on \$50,000 bonds.

Fla., Oxford—School—Town is considering bond issue to erect school. Address School Board.

Fla., Pahokee—Paving—Town, J. H. Cason, Clk., will receive bids until Dec. 10 on \$50,000 6% bonds; \$1000 denom. (Lately noted.)

Fla., Pensacola—Road—Escambia County will receive bids until Dec. 18 on \$250,000 bonds; \$1000 denom. (Lately noted.)

Fla., Plant City—Grading and Sewerage—City, W. E. Lee, Mayor, will receive bids until Dec. 17 on \$45,000 6% bonds. (Lately noted.)

Fla., Tampa—Road—Hillsborough County Comms., W. R. Watkins, Clk., sold \$1,500,000 bonds to Lehman Bros. and associates at 99.28.

Fla., Tampa—School—Hillsborough County Board of Public Instruction, J. E. Knight, Sec., will receive bids until Nov. 27 for \$12,000 Special Tax School Dist. No. 44 bonds; \$400 denom.

Fla., West Palm Beach—Auditorium and Indebtedness—City will vote on \$200,000 bonds for municipal auditorium and recreation pier on Lake Worth, and \$100,000 bonds for indebtedness. Address City Manager Wright.

Fla., West Palm Beach—Road and Bridge—Palm Beach County sold \$45,000 6% bonds to Caldwell & Co., Nashville, at \$42,770 and accrued interest.

Fla., West Palm Beach—School—Palm Beach County School Board, Agnes Ballard, Supt., will not issue \$50,000 bonds as lately noted contemplated.

Ga., Blackshear—School—City voted \$25,000 bonds. Address The Mayor.

Ga., Kite—School—Kite Consolidated School Dist., J. S. Stephenson, Clk. of Board, will receive bids until Dec. 12 on \$15,000 6% bonds.

Ga., Ray City—School, Water and Lights—City voted \$5000 school and \$7000 water and light bonds. Address The Mayor.

Ga., Thomasville—School—City, H. J. MacIntyre, Mayor, will receive bids until Dec. 17 on \$140,000 4½% bonds.

Ga., Waycross—Schools—City, Dan T. Cowart, Mayor, voted \$125,000 bonds. (Lately noted.)

Ky., Owensboro—Water—City voted \$100,000 bonds; J. H. Hickman, Mayor.

Ky., Paducah—Park—City defeated \$100,000 bonds; Col. H. C. Rhodes Chmn., Park Board. (Lately noted.)

Ky., Pikeville—Road and Bridge—Pike County, H. Pauley, Treas., will receive bids until Nov. 30 for \$250,000 5% bonds; \$1000 denom.

La., Alexandria—Schools—Alexandria School Dist. No. 1 voted \$1,250,000 bonds; sale in about 90 days. Address J. W. Bolton, Pres., School Board. (Lately noted.)

La., Baton Rouge—Municipal Improvement—City will receive bids until Dec. 11 for \$1,060,000 bonds to include \$325,000 for sewerage; \$300,000 streets; \$175,000 storm drainage; \$175,000 fire department; \$50,000 city hall repairs; \$35,000 opening streets. Address The Mayor. (Lately noted.)

La., Clarkston—School—J. H. Hilsman & Co., Atlanta, Ga., purchased \$25,000 6% bonds.

La., Gueydan—School—Vermillion Parish School Board, Abbeville, sold \$75,000 5½% bonds to Sutherlin, Barry & Co., Inc., New Orleans. (Previously noted.)

La., Vidalia—Water—Town will vote Dec. 18 on \$37,500 bonds. Address The Mayor.

Miss., Biloxi—School and Road—City voted \$110,000 school bonds; also voted road bonds. Address City Clerk. (Lately noted in part.)

Miss., Canton—City sold \$130,000 general obligation bonds to Banker's Bond & Trust Co., Jackson.

Miss., Vicksburg—Road and Bridge—Warren County, J. G. Sherard, Clk., will receive bids until Dec. 3 for \$300,000 6% bonds; \$1000 denom. (Lately noted.)

Miss., Yazoo City—Paving—City will receive bids until Dec. 10 for \$43,500 paving notes. Address The Mayor.

Mo., Marceline—Water and Sewer—Commercial Trust Co., Kansas City, purchased \$75,000 5% bonds.

Mo., New Franklin—Street—City voted \$30,000 street improvement bonds. Address The Mayor.

N. C., Danbury—School—Stokes County Comms., J. R. Bowen, Clk., will receive bids until Nov. 26 for \$20,000 6% bonds of Walnut Cove Special School Tax Dist.; \$1000 denom.

N. C., Durham—Water—City, C. B. Alston, Clk., authorized issuance of \$1,000,000 bonds.

N. C., Fairmont—Water—Board of Commissioners, J. R. Bracey, Clk., will receive bids until Dec. 8 for \$40,000 6% bonds; \$1000 denom.

N. C., Fayetteville—School—Cumberland County, D. Gaster, Treas., will receive bids until Dec. 10 for \$183,000 5, 5½ and 6% bonds; \$1000 denom..

N. C., Gibsonville—Water and Sewer—Town, H. R. Story, Clk., sold \$30,000 bonds to Spitzer, Rorick & Co., Toledo, O. (Lately noted.)

N. C., Hillsboro—School—Orange County Comms. sold \$65,000 5½% bonds to First National Co., St. Louis, Mo., at 100.05. (Lately noted.)

N. C., Kinston—School—Kinston Graded School Dist. Trustees, C. F. Harvey, Sec., will receive bids until Dec. 5 at office Superintendent, Grainger Bldg., for \$100,000 bonds; \$1000 denom. (Lately noted.)

N. C., Kittrell—Kittrell School Dist., Vance County, E. M. Rollins, Supt., sold \$45,000 6% bonds to Kalman, Gates, White & Co., St. Pauls, at 105.76. (Lately noted.)

N. C., Murphy—Road—Cherokee County will vote Dec. 15 on \$25,000 bonds. Address County Clerk.

N. C., New Bern—School—Craven County, G. A. Farrow, Register of Deeds, will receive bids until Dec. 7 for \$165,000 bonds.

N. C., Raleigh—Improvement—State, B. R. Lacy, Treas., sold \$10,649,500 4½ and 4¾% bonds to First National Bank, New York. (Lately noted.)

N. C., Shelby—School—Cleveland County Board of Education and County Comms. approved loan of \$30,000 to Piedmont District to erect school.

N. C., Thompson—Robeson County Board of Education, J. R. Poole, Supt., Lumberton, will receive bids until Nov. 26 (extended date) for \$25,000 6% bonds; \$1000 denom. (Lately noted.)

N. C., Warrenton—School—Warren County Comms., S. M. Gardner, Clk., sold \$60,000 6% bonds to Prudden & Co., Toledo. (Lately noted.)

Okla., Bristow—School—City voted \$135,000 bonds for new high school at election held Nov. 7. (Lately noted.)

Okla., Nowata—Water—City is considering voting on \$125,000 bonds. Address The Mayor.

Okla., Ponca City—Sewer, Hospital—City, C. E. Norton, Clk., defeated \$15,000 municipal detention hospital and \$11,000 storm sewer bonds. (Lately noted.)

Okla., Sapulpa—Road—Creek County is reported planning \$750,000 bond issue. Address County Clerk.

Okla., Stroud—Sewer—City voted \$52,000 bonds. Address The Mayor.

Okla., Tecumseh—Highway—Pottawatomie County Comms. called election Dec. 11 on \$965,000 bonds.

S. C., Sumter—School—Sumter School Dist., J. W. Brunson, Sec.-Treas., will receive bids until Dec. 4 on \$285,000 5½% bonds. (Lately noted.)

S. C., Union—Paving—City, O. E. Smith, Mayor, contemplates issuing \$146,000 bonds.

Tenn., Chattanooga—School—City, Richard Hardy, Mayor, will sell \$500,000 of \$750,000 bonds recently voted to erect schools.

Tenn., Gainesboro—Road and Bridge—Jackson County Court, G. Lee McGlasson, Clk., sold \$20,000 5 per cent bonds to Caldwell & Co., Nashville, at par and accrued interest.

Tenn., Memphis—Municipal Improvement—City Commission will sell \$2,500,000 bonds including \$1,500,000 for waterworks; \$494,000, recent street improvements; \$150,000, additions to General Hospital; \$100,000, addition to Cossitt Library; \$100,000, tuberculosis hospital; \$100,000, additional street improvements; date of sale Dec. 7.

Tenn., Missionary Ridge, P. O., Chattanooga—Municipal Improvement—City will vote Dec. 11 on \$30,000 6% bonds, including \$12,500 for roads, \$7500 for fire hall and municipal building, \$10,000 for indebtedness. Address City Comms.

Tex., Anderson—Road—Road Dist. No. 1, Grimes County, voted \$450,000 bonds; R. M. West, County Judge. (Lately noted.)

Tex., Athens—Road—Road District No. 10, Henderson County, defeated \$40,000 bonds. Address Henderson County Road Comms., Dist. No. 10. (Lately noted.)

Tex., Austin—Road—Travis County, George Matthews, Judge, will vote Dec. 14 on \$1,500,000 bonds. (Lately noted.)

Tex., Austin—School—State Board of Education purchased \$76,500 6 per cent, \$27,400 5½ per cent and \$35,769 5 per cent school bonds.

Tex., Beaumont—School—School Dist. No. 3 (Amelia) votes Nov. 24 on \$20,000 bonds. Address Jefferson County Board of Education.

Tex., Cameron — Road—Milam County, Jeff T. Kemp, Judge, sold \$100,000 bonds at par, accrued interest and premium of \$640.

Tex., Cameron—School—City, J. B. White, Mayor, will vote not later than Dec. 15 on \$150,000 bonds.

Tex., Canadian—Road—Road Dist. No. 1 will vote Dec. 1 on \$13,000 bonds; J. E. Stephens, Hemphill County Judge.

Tex., Crockett—Highway—Road District No. 4, Houston County, votes Nov. 24 on \$80,000 bonds; L. L. Moore, County Judge.

Tex., Desdemona—Street—City, G. H. Rieger, Mayor, voted \$10,000 bonds.

Tex., Edgewood — Water and Electric—City, J. R. Greer, Mayor, sold \$55,000 6% bonds to C. W. McNear & Co., Chicago, at 99.50. (Lately noted.)

Tex., Fairfield—Road—Freestone County will vote Dec. 22 on \$1,000,000 bonds. Address County Comms.

Tex., Port Arthur—Municipal—City will vote Nov. 27 on \$1,036,593 bonds as follows: \$297,937 for paving and sewers; \$169,960, shell and gravel paving; \$69,449, drainage; \$19,815, park improvements; \$56,500, fire department; \$91,262, pumping units for water extensions; \$45,000, incinerator; \$6125, breakwater and boat landing; \$9000, repair and improve city slip; \$119,447, extend water lines; \$132,633, sewer; J. P. Logan, Mayor. (Lately noted.)

Tex., Hebbronville — Road — Jim Hogg County, A. M. Buenford, Judge, voted \$60,000 bonds.

Tex., Houston—Highway—Harris County will vote Dec. 18 on \$750,000 bonds to include \$600,000 for county bridges; \$100,000 for bridge over ship channel; \$50,000 for paving. Address Chester H. Bryan, Houston. (Lately noted.)

Tex., Jacksboro—Highway—Jack County, J. D. McComb, Judge, voted \$400,000 bonds. (Lately noted.)

Tex., Karnes City—Road—Karnes County, D. O. Klingenmann, Judge, will vote soon on \$125,000 bonds.

Tex., Lamesa—School—City will vote soon on \$75,000 bonds. Address The Mayor.

Tex., Linden—Road—Cass County Comms. are considering calling election on \$1,000,000 bonds; S. L. Henderson, County Judge.

Tex., Malone — Waterworks—City, A. J. Pyburn, Mayor, will vote Dec. 4 on \$40,000 bonds.

Tex., Marshall—City Hall—City plans election on bonds to erect city hall. Address Mayor Owens.

Tex., Muleshoe—School—District No. 3, Bailey County, plans to issue \$13,000 bonds. Address County Board of Education.

Tex., Roscoe—Street—J. L. Arlitt, Austin, purchasing \$15,000 6 per cent street improvement and \$12,000 6 per cent waterworks bonds.

Tex., San Marcos—School—City contemplates election on \$200,000 bonds. Address School Board.

Tex., Sinton—Road—Road District No. 3, San Patricio County, will vote Dec. 8 on \$25,000 bonds. Address County Comms.

Tex., Texarkana—Street—City, W. H.

James, Sec., will sell \$200,000 bonds about Jan. 1, 1924.

Va., Franklin—Newsoms Special School Dist., Southampton County, sold \$40,000 5% bonds to Spitzer, Rorick & Co., Toledo, O., at 97.52.

Va., Chatham—Water—City will vote Dec. 18 on \$50,000 bonds. Address The Mayor.

Va., Portsmouth—Road and Bridge—Norfolk County Board of Supervisors will receive bids until Jan. 10, 1924 for \$280,000 bonds. (Lately noted.)

W. Va., Charleston—Municipal Improvements—City, W. W. Wertz, Mayor, will vote Dec. 20 on \$1,500,000 bonds for street, grading, bridge, etc.

W. Va., Follansbee—Municipal Building—City will vote on \$60,000 bonds; similar bond issue recently defeated. Address The Mayor.

Financial Notes

Security National Bank and Liberty National Bank, Tulsa, Okla., consolidated under name of Security National Bank.

Southern Insurance Co., Nashville, Tenn., purchased Public Life & Accident Insurance Co., Nashville, organized several years ago with \$100,000 capital.

United Railways Savings and Loan Assn. St. Louis, Mo., increased capital from \$7,000,000 to \$8,000,000.

Trade Literature

A Southern Company's Wonderful Growth.

The Longview Company, of Longview, Washington, has issued a beautifully illustrated book of 40 pages describing the City of Longview that is being built there and which is an outgrowth of the activities of the Long-Bell Lumber Co., of Kansas City, founded by R. A. Long, who is chairman of its board of directors and whose picture is reproduced in the book. At Longview this company is constructing what is designed to be one of the largest lumber manufacturing plants in the world, with an annual capacity of 500,000,000 feet of finished lumber products, which is practically equal to the total production of 11 mills now operated by the company, the assets of which aggregate \$75,000,000. The new city of Longview was planned by city building experts, and where a year ago there were farms a modern 6-story hotel has been built, business buildings of brick concrete and steel are going up; already scores and scores of modern homes are occupied and scores more are being erected, streets paved, with commodious sidewalks, sewers laid and much other work is being done to complete the model town plan that was adopted. A fine school building has just been finished. Longview is on the Columbia River at the mouth of the Cowlitz River and about half way between Portland, Oregon, and the ocean. The Long-Bell Lumber Co., operates in eight states, viz.: Missouri, Kansas, Oklahoma, Texas, New Mexico, Kentucky, Washington and Oregon. It has ten sawmill plants in the South, and it also owns the property of the Weed Lumber Co., at Weed, California. The business began as a small retail lumber yard at Columbus, Kansas, in 1875, and grew gradually to its present impressive magnitude.

Financing, Engineering, Taxation, Etc.

The foreword of a booklet issued by the P. W. Robertson Corporation, 906 Singer Building, New York, contains some very interesting observations concerning public affairs and business matters in relation to Congress, the rest of the publication being devoted to a description of the service extended by the corporation as to general financing, engineering and management, in its several departments covering banking service, business counsel, accounting, etc. There are branches in Washington, Pittsburgh and Cleveland. In this connection it should be noted that William T. Jennings, John T. Elsroad and Thomas F. Shanahan have announced their association with the staff of Robertson, Furman & Murphy, tax specialists, at the same address. These three gentlemen who were formerly with the income tax unit of the Bureau of Internal Revenue in several important positions, have had wide experience with the income tax laws and their administration.

Arkansas' Traveling Exposition.

Two interesting industrial folders have been received from Arkansas, one being the announcement of the Arkansas Traveling Exposition from November 17 to November 29 starting at Little Rock and going as far east as Boston, and including Memphis, Charlotte, Washington, Baltimore, New York, Boston, Buffalo, Cleveland, Indianapolis, and St. Louis, besides other points reached by side trips. This trip is on a special train of cars with exhibits showing the resources of the state. The other announcement is from the Fort Smith Chamber of Commerce and deals with the subject of industrial development there and in that vicinity. The headquarters of the Traveling Exposition are at the State Capitol Building, Little Rock, Ark.

The Chemical Resistance of Engineering Materials. By Marston Lovell Hamlin and Francis Mills Turner, Jr. New York: The Chemical Catalog Company, Inc. 1923.

When this country was faced with the war conditions of the years 1915-1918 inclusive there did not exist, it is stated, any assemblage of data in readily accessible form concerning the action of industrial chemicals upon construction and other engineering materials used in the erection of chemical production plants, with the consequence that when engineers without chemical experience were called upon, as they had to be called upon, to speedily build chemical manufacturing plants, they were much handicapped in their work. The writing and publication of this volume of more than 250 pages is therefore a result of that condition of affairs which was embarrassing in a great emergency. The book appears to be very complete in its treatment of the subjects under discussion, although the preface remarks that the object is to give the results of experiment and general knowledge fully but not necessarily in an exhaustive way, to provide a bibliography by references to sources of information, and to stimulate further research and publication along the same line. It is further observed that most manufacturing organizations possess information on the behavior of engineering materials and that they would serve the industry at large as well as themselves if they would publish such data. The volume is divided into nine chapters dealing with various acids, alkalies, metals, neutral substances, etc., etc. The selection of materials is considered, and specifically, the use of concrete for construction. Considerable tabulated information makes the book exceedingly comprehensive and satisfactory.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Changes of Professional Connection.

Charles P. Tolman, consulting engineer, has gone into general practice with office at 111 Broadway, New York, having resigned as chief engineer and chairman of the manufacturing committee of the National Lead Company, which position he has held for the last sixteen years. He will, however, continue to be consulting engineer for the company, whose offices are in the same building, but he will now specialize in dust and fume control, handling of materials and products, and in manufacturing methods and processes particularly.

Important Sale of Factory Property.

The large manufacturing plant of W. J. Oliver & Company at Knoxville, Tenn., is to be sold to the highest bidder on December 15 according to announcement. This, it is stated, is one of the best plants of its kind, consisting of a large machine shop, foundry, blacksmith shop, and woodworking shop with 11 acres of land, being equipped for general machine and foundry work, especially the building of standard dump and mining cars. It is located adjacent to the Southern Railway and the Louisville and Nashville Railroad, with sidings for each of those trunk lines. R. A. Brown is clerk and master and James B. Crumbliss, receiver, both of Knoxville. Further particulars concerning the property and the sale will be found in the formal advertisement that will appear in the issue of the MANUFACTURERS RECORD of November 29.

William F. Wendt.

William F. Wendt, formerly president of the Buffalo Forge Company, Buffalo, N. Y., and who was founder of that corporation, died at his home in that city, October 30 at the age of 65 years. He was a native of Buffalo and was prominent for many years in local affairs. Mr. Wendt continued as president of his company until 1916 when he retired. He was also president of the George L. Squier Manufacturing Co., the Buffalo Steam Pump Co., and the W. F. Wendt Publishing Co. which issued *La Hacienda*, printed in the Spanish language and circulated in South America, and also *The American Blacksmith*. Two years ago he retired from the publishing company. Mr. Wendt was keenly interested in the betterment and advancement of civic and national affairs but he never sought office. His brother, H. W. Wendt, is now president of the Buffalo Forge Company.

Big Contract Let for Sand and Gravel.

Sand and gravel for construction of the big hydro-electric power plant on the Tallapoosa River at Cherokee Bluff by the Alabama Power Co., has been contracted for through the Birmingham Slag Co., of Birmingham, Ala. More than 15,000 carloads of sand and gravel will be required for this job and to supply it the Montgomery Gravel & Sand Co., a subsidiary of the Birmingham Slag Co., will be organized immediately to develop property bought at Mount Meigs, 15 miles from Montgomery on the Atlanta & West Point Railroad. C. B. Ireland, assistant general manager of the Birmingham Slag Co. will be general manager of the Montgomery Gravel & Sand Co. which will have its headquarters in Montgomery and the gravel and sand business will be developed

on a large scale with operating forces and salesmen as in the slag business. H. G. Ireland, president of the new company, who is also vice president and general manager of the slag company, announced the award of this large contract. The new company will represent an investment of about \$150,000. There are two years business already assured for it, as the power company will establish another large hydro-electric plant in Alabama. Preparations are being made to install machinery for the gravel and sand plant, which will be electrically driven throughout. Current will be supplied by the Alabama Power Co. It is expected to begin shipments by February.

New Factory For High Speed Cutting Tools.

After thirty-one years of specialized experience covering every phase of the manufacture of shear blades and knives A. W. Erickson has established and heads a new company of craftsmen, concentrating on the production of cutting tools of improved quality and marked economy, this being referred to as "good news for the steel, iron, metal working, wood working and paper industries." Mr. Erickson recently resigned the position

of superintendent of the Wapakoneta Machine Co., Wapakoneta, Ohio, which he held for seven years, and organized the Pioneer High Speed Machine Knife and Tool Company, of Cleveland, Ohio, in which the heads of the tempering and grinding divisions have been personally associated with him for many years. A well equipped factory is now in production.

New Line of Vacuum Pumps.

The Ingersoll-Rand Company, 11 Broadway, New York, have recently developed a new line of vertical belt-driven vacuum pumps which embody numerous improvements, one of which is a constant level oil pan that heretofore has not been applied to small vertical belt-driven machines. The new pumps are known as Type 15 and they should be of particular interest to users who require high-grade, standard, reciprocating, dry vacuum pumps of small capacities. The wide range of sizes and the different methods of drive offer a vacuum pump to suit any condition where a high vacuum is necessary and it is stated that these machines will pull and maintain vacuums between 28.6 inches and 29.25 inches, depending on their size. In addition to the standard belt design each size is built as a self-contained electric motor outfit, using the short belt drive arrangement or driven through pinion and internal gear. The vacuum pump and electric motor of both the short belt and gear driven units are mounted on a metal subbase so that they are not dependent on the foundation for correct alignment.

(Additional Proposals on Pages 112 to 115)

Bids close December 19, 1923.

PROPOSALS FOR STERN-WHEEL STEEL TOWBOAT.—Office, First and Second Mississippi River Districts, 1006 McCall Building, Memphis, Tenn.—Sealed Proposals will be received here until 11 a. m. Dec. 19, 1923, and then opened, for furnishing one stern-wheel steel towboat. Further information on application.

Bids close December 1, 1923.

U. S. ENGINEER OFFICE, MOBILE, ALA.—Sealed proposals will be received here until 11 A. M., December 1, 1923, and then opened, for the construction and delivery of five steel barges. Further information on application.

Bids close December 19, 1923.

U. S. ENGINEER OFFICE, WILMINGTON, N. C.—Sealed proposals will be received here until 12 o'clock noon, December 19, 1923, and then opened for dredging in Inland Waterway, Beaufort to Jacksonville, N. C. Further information on application.

Bids close December 19, 1923.

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA.—Sealed proposals will be received here until 11 A. M., December 19, 1923, and then opened, for furnishing and delivering Diesel engine with electric generator, propulsion motor, and control equipment for same, for Towboat Kanawha. Further information on application.

Bids close December 10, 1923.

UNITED STATES ENGINEER OFFICE, MONTGOMERY, ALA.—**SEALLED PROPOSALS** will be received here until December 10, 1923, and then opened, for constructing and delivering one 134-ft. steel hull, stern-wheel towboat. Further information on application.

Bids close December 3, 1923.

SEALLED PROPOSALS will be received at the U. S. Engineer Office, 329 Custom House, New Orleans, La., until 9 a. m. December 3, 1923, and then opened for constructing and delivering one 1800 barrel steel oil barge, 100 feet by 30 feet by 6 feet, and one steel hull for derrick boat, 74 feet by 34 feet by 5 feet. Further information on application.

Bids close November 28, 1923.

U. S. ENGINEER OFFICE, JACKSONVILLE, FLA.—Sealed proposals will be received here until 12 M. November 28, 1923, and then opened for constructing and delivering pontoon catamarans for the dredge MAJOR J. C. MAILLERY. Further information on application.

Bids close December 17, 1923.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., November 17, 1923.—**SEALLED PROPOSALS** will be received at this office until 3 P. M., December 17, 1923, and then opened, for remodeling, changes, etc., at the United States Marine Hospital, Mobile, Alabama, in accordance with the specification and drawings, copies of which may be obtained at this office, or the office of the Custodian, Mobile, Ala., in the discretion of the Supervising Architect. Jas A. Wetmore, Acting Supervising Architect.

Bids close December 12, 1923.

Sealed bids in duplicates on large quantities of used material, including old iron and metals, a standard gauge locomotive, automotive equipment and parts, road scraper and tractor, miscellaneous old machinery, plumbing and building supplies and equipment, surgical instruments, X-ray equipment etc., situated at U. S. Veterans Rehabilitation Center, Federal Park, Maryland (railroad station Perryville) will be received until 11 A. M., December 12, 1923, at the Supply Division, U. S. Veterans Bureau, 736 Arlington Building, Washington, D. C. For mimeographed list of articles and bidding forms apply to Chief of Supply Division at above address or to Community Manager, U. S. Veterans Rehabilitation Center, Federal Park, Maryland. FRANK T. HINES, Director, U. S. Veterans Bureau.

Bids close December 18, 1923.

DEPARTMENT OF THE INTERIOR. November 14, 1923. Sealed proposals in duplicate will be received at the Department until 2 o'clock P. M., Tuesday, December 18, 1923, for the Erection and Completion of Seven Bungalows at St. Elizabeth's Hospital, Washington, D. C., in accordance with plans and specifications, copies of which may be obtained from the Chief Clerk of the Department. Applicants for plans will be required to deposit a certified check for \$25, payable to the order of the Secretary of the Interior, as a guarantee that the plans will be returned in good condition. The right is reserved to reject any or all bids, to waive technical defects, or to accept one part and reject the other as the interests of the Government may require. Proposals must be marked "Proposals for Erection of Seven Bungalows at St. Elizabeth's Hospital," and be addressed to the Secretary of the Interior, Washington, D. C. F. M. GOODWIN, Assistant Secretary.

-- and San Francisco and Los Angeles

Ernst & Ernst, having opened offices in San Francisco and Los Angeles, now extend from coast to coast.

The scope of the organization, with successful offices in forty-two principal cities throughout the country, measures the value of Ernst & Ernst service to modern American business.

Ernst & Ernst go to the Pacific Coast with the specialized knowledge and experience, the broad viewpoint as a national institution—desired by business there.

They will make available the best plans for executive control thru facts and figures; suggest the economies, improvements and stimulus of better methods.

They will serve banker and borrower by advising the well-planned Business Budget and Certified Balance Sheet.

Briefly—the addition of offices in San Francisco and Los Angeles means that the service of Ernst & Ernst now reaches from coast to coast—a service devoted wholeheartedly to the development of better business.

ERNST & ERNST AUDITS - SYSTEMS TAX SERVICE

SAN FRANCISCO: 887 TO 893 MILLS BUILDING
LOS ANGELES: 634 TO 638 CITIZENS BANK BUILDING

NEW YORK
BUFFALO
ROCHESTER
BOSTON
PROVIDENCE
PHILADELPHIA
BALTIMORE
RICHMOND

CLEVELAND
CINCINNATI
TOLEDO
COLUMBUS
YOUNGSTOWN
AKRON
CANTON
DAYTON

DETROIT
GRAND RAPIDS
KALAMAZOO
PITTSBURGH
WHEELING
ERIE
CHICAGO
MILWAUKEE

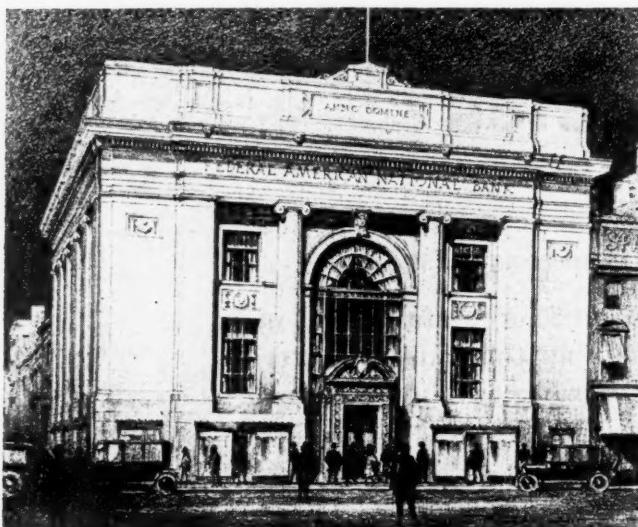
MINNEAPOLIS
ST. PAUL
DAVENPORT
INDIANAPOLIS
ST. LOUIS
KANSAS CITY
OMAHA
DENVER

ATLANTA
NEW ORLEANS
DALLAS
HOUSTON
FORT WORTH
SAN ANTONIO
WACO

FEDERAL TAX OFFICE: 910 TO 918 MUNSEY BLDG., WASHINGTON, D. C.

\$1,000,000 Bank Building for Washington.

A new \$1,000,000 bank building will be erected by the Federal American National Bank of Washington, D. C., at the corner of Fourteenth and G streets. Plans for the building are being prepared by Alfred C. Blossom of New York and J. H. DeSibour of Washington. The structure will be individual in design and will occupy a lot 82x85 feet. It



FEDERAL AMERICAN NATIONAL BANK.

will be about 70 feet high, with stores on the ground floor and banking room above with two mezzanine floors.

A number of unusual features will be incorporated in the structure, such as the elimination of wickets in the counters between customers and the tellers, while the divisions between the cages will be very low and of glass instead of the usual wire cage work. Provision will be made for assembly rooms in which customers and friends of the bank may attend lectures.

\$200,000 School Building for Winchester, Ky.

Winchester, Ky., November 17—[Special]—A new high school to cost \$200,000 without mechanical equipment will be erected here, general contract having recently been awarded to the Central States Construction Co., of Huntington, W. Va. The building will be three stories, with 16,000 square feet of floor space on each floor. It will be of steel, concrete, stone and brick, with a built-up roof and wood, cement, composition and terrazzo floors, the equipment to consist of a \$30,000 hot air heating system, electric wiring, etc. R. M. Bates, Jr., of Huntington, is the architect.

Birmingham Plans \$250,000 Stadium.

Birmingham, Ala.—Plans for the erection of a \$250,000 stadium here are being promoted by the Junior Chamber of Commerce whose purpose it is to organize a stock company for carrying out details. Preliminary sketches are being made by Warren, Knight & Davis of Birmingham, the plans to provide seating accommodations for 20,000 at first and ultimately for 60,000. The structure will be of concrete and steel.

North Carolina Pine Report.

The North Carolina Pine Association reports as follows on 49 mills for the week ending November 10:

	Total Feet
Orders	6,571,230
Shipments	9,391,780
Production	8,013,810
Normal Production	12,060,000



The Confidence of the Public

CREDIT—and thus business—is based on confidence. Credit is essential to trade and commerce.

As a part of the great credit machinery of the country this bank is anxious to gain and to hold public confidence and to help build the foundation on which such confidence rests.

Complete facilities, conservative judgment and a progressive policy are evidence of our earnest effort to add to the confidence we have earned.

THE FIFTH-THIRD
NATIONAL BANK OF CINCINNATI

Resources over Forty Million

"THE ATMOSPHERE OF YOUR BANK"

said a customer recently, "is not cold, but radiates cheerfulness and helpfulness."

That is our aim. We are properly conservative, but we recognize the obligation resting upon all bankers to help meet deserving business requirements.

We invite correspondence.

BALTIMORE COMMERCIAL BANK

Gwynn Crowther, President

Pratt Street and Market Place, Baltimore, Md.

Capital and Surplus \$900,000.00

Member Federal Reserve System

**IN RICHMOND
VIRGINIA**

The First National Bank offers complete facilities for quick collections in this territory.

**FIRST
NATIONAL BANK**

JOHN M. MILLER, JR.,
President

Resources over \$30,000,000
Capital and Surplus \$4,000,000

MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL. \$1,000,000

REAL ESTATE MORTGAGE BONDS

We are interested in the purchase of first mortgage bond issues covering business property, hotels, apartment houses, etc., in amounts of \$50,000 and upwards. Entire issues city, county and district bonds purchased.

MARX AND CO.

Brown-Marx Bldg. Birmingham, Alabama

NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns, counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Tampa, Fla.
Chicago, Ill. Glasgow, Mont.

We Buy Bonds

and invite inquiries from municipalities and contractors. We deal in city, county, district, school, road, lighting, water works and other municipal issues.

A. C. ALLYN & CO.

71 W. Monroe St., Chicago, Ill.
NEW YORK MILWAUKEE MINNEAPOLIS BOSTON

TODD & McCOLLOUGH

Members of

AMERICAN SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS
Auditing, Cost and Accounting Systems,
and Federal Tax Service

No. 323 South Tryon St.

Charlotte, N. C.

We Buy Bonds

City, County, School and Road, from
Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipal bonds including road, school, county, drainage and levee bonds.

M. W. ELKINS & CO.
Southern Trust Bldg. Little Rock, Ark.

F. WM. KRAFT

LAWYER

Specialist in Examination of
Municipal and Corporation Bonds
and Preparation of Proceedings relating thereto

517-520 Harris Trust Bldg. CHICAGO, ILL.
111 West Monroe St.

**Attention
Contractors and Municipalities****We Buy
MUNICIPAL BONDS**

THE LEWIS S. ROSENSTIEL CO.
Union Trust Building Cincinnati

JOHN NUVEEN & CO.

First National Bank Building

CHICAGO

We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale

HAVE YOU BONDS FOR SALE?

WE BUY ALL CLASSES OF MUNICIPAL BONDS,
INCLUDING CITY, COUNTY, SCHOOL,
PAVING, ROAD AND DRAINAGE

The Hanchett Bond Co., Inc.

39 SOUTH LA SALLE ST., CHICAGO

ARE YOUR SECURITIES SECURE?**Security Bank Note Company**

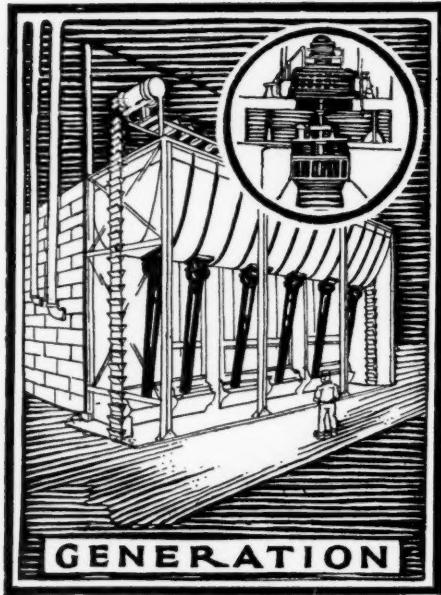
known the world over as Engravers
of securities, safe from counterfeiting and duplication.

WRITE US, ABOUT YOUR NEEDS.

PHILADELPHIA
223-5-7 Chestnut St.

NEW YORK
20 Broad St.

POWER SHOW



A New Viewpoint on Plant Management—

can be gained by studying the source of industry—the power plant—as presented at the Power Show.

Every wheel that turns—every mechanical movement in your plant—depends on your power units. If you know the *how, why, when* and *where* of the cost of power you are in a position to eliminate waste and promote efficiency in many ways.

It's an absorbing study as well as a valuable one. From the ponderous automatic stokers to the delicate recording instruments each display tells a graphic story of modern ingenuity—which it will pay you to know.

Dec. 3-8, 1923
Grand Central Palace
New York

Don't be content with sending your engineer. Send him by all means—but come along yourself. You will realize the value of this Exposition to you after one hour's time among the exhibits.

For further particulars address

NATIONAL EXPOSITION OF POWER AND MECHANICAL ENGINEERING

Grand Central Palace

New York

HOTEL COQUINA (Replacing BRETON INN at) ORMAND BEACH

is a notable addition to the hotels of Florida. It has a bath with every room, ample lounge and smoking rooms and a great, roomy dining hall where smoking is allowed.

The Ocean and the wonderful Ormond-Daytona Beach are at its front, while adjoining on the north is the excellent eighteen hole Golf Links, with large, well kept grass greens.

Good riding horses are obtainable, motoring is great, and seashore pleasures close at hand.

American plan, good service and good living.

The Coquina is satisfactory to men.

James P. Vining

Owner-Manager

Ormond Beach, Florida

The Oscar T. Smith Company

Manufacturing Bank Stationers
407-9-11 E. SARATOGA STREET
BALTIMORE, MD.

OSCAR T. SMITH
President



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THE
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Ornamental and Miscellaneous
IRON AND STEEL

Havemeyer Bars Structural Steel

Estimates furnished any size jobs

The Wilson Company - Greenville, S. C.

May We Quote You a Rate on Group Insurance?

You can figure for yourself the approximate cost, but we would like to submit a closely calculated estimate.

You know that it costs less than one percent of the payroll, or less than twenty-five cents a week per employee, but we would like to tell you whether it would be seventeen and a half cents, or twenty-one cents, or what.

You know that all Travelers life rates are low and are guaranteed; but we would like to show just how low we have succeeded in getting these rates.

If you will but say the word we will send a representative who will help you compile the few details regarding your organization, your working quarters and your occupational hazards, if any, which we need for making such an estimate.

SAY THE WORD, by using the coupon below or by getting in touch by letter, telegram or telephone with the home office of The Travelers, or with one of our seventy-five branch offices, or with one of the thousands of agents and brokers representing The Travelers.

THE TRAVELERS INSURANCE COMPANY,
Hartford, Connecticut,
Attention, Group Department.

Without imposing any obligation upon us, you may send a representative for the information regarding the number, ages, and sex of employees, and other data you need for a computation of the cost of Group Insurance.

Corporate or Firm Name.....

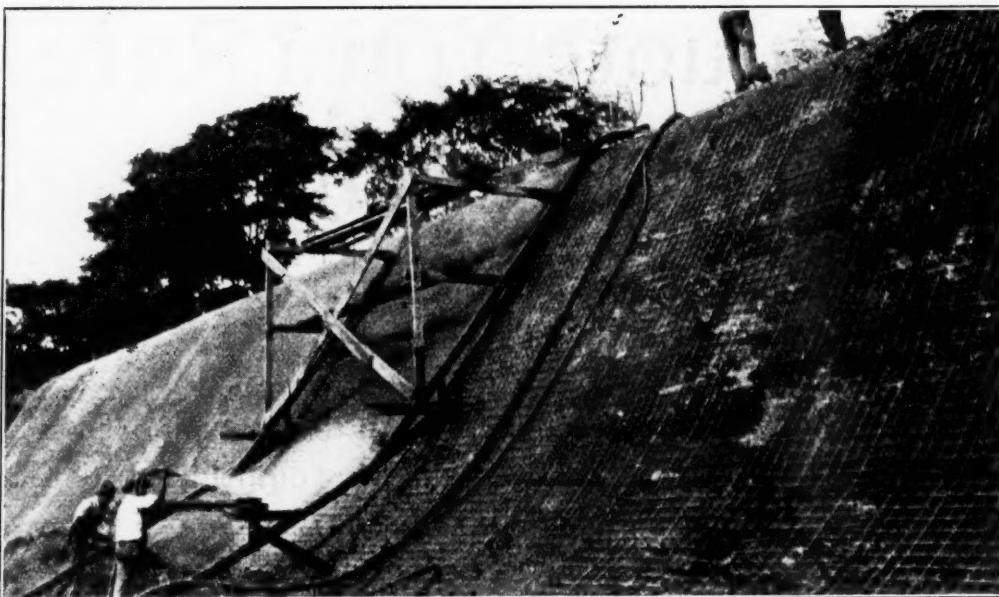
No. Street.....

City State

Have him call on Mr. Title

November 22, 1923.

Gunite Work We Have Done



Repairs being made to concrete dam for the American Brass Co., Ansonia, Conn. Gunite was applied to an average thickness of $\frac{1}{2}$. The photograph shows the disintegrated concrete with reinforcing mesh in place, the "Cement Gun" nozzle in operation and in the distance completed work.

Gunite has twice the strength of good concrete, is extremely dense, waterproof, fireproof and permanent and is economical in application
General Contracts involving Gunite Construction taken anywhere
We especially desire Southern Contracts for Winter Work

CEMENT-GUN CONTRACTING COMPANY ALLEGTON, PENNA.

Fulton Bldg.
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30 Church St.
NEW YORK CITY

1806 Farragut St.
LAREDO, TEXAS

- Building Water Reservoirs.
- Relining Reservoirs.
- Waterproofing Tanks and other Structures.
- Restoring disintegrated Brick, Masonry and Concrete Structures.
- Steel Bridge Encasement.
- Fireproofing Steel Structures.
- Building Walls and Roofs.
- Stuccoing, Tile, Brick, etc.
- Constructing Industrial Buildings.
- Lining Coal and Ash Hoppers.
- Lining Mine Shafts.
- Lining Sewers.
- Lining Tunnels.
- Holding Rock Cuts.
- Waterproofing Dams and Reservoirs.
- Building Retaining Walls.
- Building Reservoir Division Walls.
- Lining Canals and Ditches.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

Bids close December 22, 1923.

SEALED PROPOSALS will be opened in Room No. 791, U. S. Veterans' Bureau, Arlington Building, Washington, D. C., at 11 A. M., December 22, 1923, for construction complete of Infirmary; Administration, Mess, and Kitchen building; Recreation building; Nurses' Quarters; Attendants' Quarters; Garage; Storehouse; Boiler House and Laundry; Occupational-Therapy building; Ambulant cottages; Officers' Quarters; including mechanical equipment and Outside service lines except grading, roads and walks at the U. S. Veterans' Hospital, Livermore, California.

SEPARATE PROPOSALS will be received for building construction; central heating including boiler plant and heating equipment for all buildings; water supply, plumbing and sewers; electrical equipment; elevators; refrigerating plant; and stack; all as set forth on proposal sheet. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and who have established a record for satisfactory work and expedition on contracts of similar character and magnitude.

Drawings and specifications may be obtained upon application to the Construction Division, U. S. Veterans' Bureau, Room No. 791-A, Arlington Building, Washington, D. C., or to Wm. H. Radcliffe, Bureau Representative, Livermore, California. Deposit with application of a certified check or Postal money order, in amount \$100.00, payable to the Treasurer of the United States, is required for the safe return of drawings and specifications within ten days from date of opening proposals. FRANK T. HINES, Director, November 17, 1923.

RATE: 35 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 4 P. M., Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close December 11, 1923.

\$100,000 5% Town Bond

Farmville, Va.

Sealed proposals are hereby invited by the Finance Committee of the Town of Farmville, Va., for the purchase of \$100,000.00 par value of bonds of said town, of which amount \$50,000.00 par value will be known as Electric Light Improvement Bonds Series H, and \$50,000.00 par value will be known as Street Improvement Bonds Series H. All of said bonds will bear interest at 5% per annum, payable semi-annually, said bonds to be dated January 1, 1924, and payable twenty years after date, at the First National Bank of Richmond, Virginia.

All bids must be accompanied by certified check for \$1000.00 payable to the Town of Farmville, Va., and must be in the hands of the undersigned not later than 12 o'clock noon, December 11, 1923. The right to reject any and all bids, in whole or in part, is hereby reserved.

Additional information will be furnished on application to H. B. Warriner, Treasurer of the Town of Farmville, Va.

E. S. SHIELDS,

Chairman of Finance Committee of Town of Farmville, Va.

Bids close December 12, 1923.

\$15,000 6% School Bonds

Kite, Ga.

Will be sold to the highest bidder for cash on December 12th, 1923, at 12 o'clock, noon, \$15,000.00 Kite Consolidated School District Bonds, in and for the Kite Consolidated School District bearing interest from date of issue, to-wit; December 1st, 1923, at the rate of six per cent interest, payable annually, at Mechanics & Metals National Bank, New York. Said bonds maturing December 1st, 1943. Said sale to be at the Citizens Bank of Kite, Kite, Ga., and all bids must be accompanied by certified check for at least \$500, be addressed to J. S. Stephenson, Clerk of the Board of Trustees of the Kite Consolidated School District, Kite, Ga., and be sealed and plainly marked "Bids for Bonds." The Board of Trustees of said School District reserves the right to reject any and all bids.

This November 15th, 1923.

Kite Consolidated School District,
By J. S. STEPHENSON,
Clerk of the Board.

Bids close December 11, 1923.

\$90,000 5 1/2% School Bonds

Eufaula, Ala.

Sealed proposals will be received and opened by the City Council of the City of Eufaula, Alabama, on Tuesday, the 11th day of December, 1923, said bids to be filed with the City Clerk of Eufaula, not later than 11 o'clock on said date, for the sale of the following described public school bonds.

One Hundred Eighty Bonds of the City of Eufaula, Alabama, of the denomination of \$500.00, each, aggregating \$90,000.00, said bonds being issued under authority of an election held May 28, 1923, at which election the electors of the City of Eufaula authorized the issuance of One Hundred Thousand Dollars of bonds for the purpose of acquiring, providing or constructing a school house, or school houses, in the City of Eufaula.

This issue of bonds is designated as Public School Bonds, being dated 1st day of January, 1924, and will mature at periods of five, ten, fifteen, twenty, twenty-five and thirty years from date, being issued in six equal series, and will bear interest at the rate of 5 1/2 per centum per annum, payable semi-annually, in gold coin, at the office of American Exchange National Bank of New York, N. Y.

These bonds are exempt from State, County, and municipal taxation.

Said bonds shall be paid for, when delivered, in cash by the purchaser at the price agreed upon, and will be delivered to the said purchaser at an agreed place as soon as practicable after their sale.

The purchasers of these bonds will be furnished a copy of the approving opinion of Messrs. Storey, Thorndike, Palmer & Dodge, attorneys of Boston, Mass. The Council reserves the right to sell said bonds in separate series, or as a whole.

A certified check in the amount of \$1000 must accompany each bid.

The Council reserves the right to reject any or all bids.

By order of the City Council.

T. C. DOUGHTIE,
City Clerk.

Bids close November 28, 1923.

Black River Bridge

SOUTH CAROLINA STATE
HIGHWAY DEPARTMENT

F. A. Project No. 223 Georgetown County
Georgetown, S. C.

Bids will be received until 12:00 o'clock noon, Wednesday, November 28, 1923, at the office of the Board of County Commissioners of Georgetown County, Georgetown, S. C., for the construction of a bridge over Black River on State Route No. 40 in Georgetown County.

The work to be done consists of the construction of a 440-ft. reinforced concrete and steel bridge and 1936 ft. of earth approaches with sand-clay surfacing, which will be let under the following contracts:

CONTRACT NO. 1

Piers, concrete approaches, fenders, floors and surfacing, complete in place. Approximate quantities:

60 cu. yds. dry excavation.	
395 cu. yds. wet excavation.	
957.5 cu. yds. Class "A" concrete.	
44,497 lbs. reinforcing steel.	
6,000 lin. ft. untreated timber piling.	
4,730 lin. ft. treated timber piling.	
33,772 M. B. M. treated timber.	
518 sq. yds. rock asphalt paving.	
362 sq. yds. creosoted wood block paving.	

CONTRACT NO. 2

Steel superstructure, complete in place. Approximate quantities:

335,000 lbs. Structural Steel, fabricated and erected.

CONTRACT NO. 3

Earth approaches. Approximate quantities:

Necessary clearing and grubbing.	
26,000 cu. yds. common excavation	
(barrow).	

902 cu. yds. sand-clay surfacing.	
1,936 M. lin. ft. mixing and shaping.	

11 cu. yds. Class "B" Concrete.

200 lin. ft. Reinforced concrete pipe.

Proposals must be accompanied by a certified check or corporate surety bond made in South Carolina in the following amounts:

For Contract No. 1—One Thousand Dollars (\$1000); for Contract No. 2—One Thousand Dollars (\$1000); and for Contract No. 3—Three Hundred Dollars (\$300); made payable to the South Carolina State Highway Commission. Separate bids will be received for each contract, however if bidder desires to submit a proposal for both

Contract No. 1 and Contract No. 2 only one check for One Thousand Five Hundred (\$1500) dollars will be required.

Plans, specifications and proposal forms are on file at the offices of the State Highway Engineer, Columbia, S. C. Plans will be furnished upon request accompanied by a check for \$3.00 for plans of Contracts No. 1 and No. 2, and \$3.00 for plans of Contract No. 3. No refunds will be made for plans returned.

Bids close December 5, 1923.

Road Construction

Punta Gorda, Fla., Nov. 10, 1923.

Sealed proposals will be received by the Board of County Commissioners of Charlotte County at Punta Gorda, Florida, until 12 o'clock noon, on the 5th day of December, 1923, for the construction of the following section of road:

Project No. 564-A, Road No. 5 in Charlotte County, approximately 10.885 miles in length. Work to be done consists of the following approximate quantities:
Clearing and grubbing, 55.53 acres.
Regular excavation, 167,070 cu. yds.
Untreated structural timber, 51.3 M. F. B. M.
Treated structural timber, 98.1 M. F. B. M.
Untreated trestle piles, 5104 lin. ft.
Treated trestle piles, 3520 lin. ft.
24-in. C. I. Pipe, 36 lin. ft.

All work to be done in accordance with plans and specifications of the State Road Department.

A certified check or bidder's bond made payable to the Chairman of the Board of County Commissioners in the sum of 5 per cent of the amount bid, must accompany each proposal.

Plans may be examined at this office and at the office of the State Road Department, Tallahassee, Fla., and at the office of the Division Engineer, Lakeland, Fla., or may be obtained upon application to the State Road Department, Tallahassee, Fla., for the sum of \$5.00 each, which amount will be refunded if plans are returned in good condition to the office of the State Road Department at Tallahassee by a bona fide bidder within 10 days after bids are received. The right is reserved to reject any or all bids.

J. T. SWINNEY,
Chairman B'd. of Co. Comms.
Charlotte County.

R. C. BLOUNT,
Clerk of Circuit Court.

Bids close November 27, 1923.

Road Construction

OFFICE OF THE STATE ROAD
DEPARTMENT

Tallahassee, Fla., Nov. 5, 1923.

Sealed proposals will be received at this office until 12 o'clock noon on the 27th day of November, 1923, for the construction of the following sections of roads:

Hard Surface (Plain Cement Concrete, Asphaltic Surface on Rock Base) including Grading, Surface and Drainage Structures:

Proj.	Road	Length	
No.	No.	County	(mi.)
521	4	Nassau	12.42

Clearing and Grubbing, Grading, Drainage Structures on Rock Base:

40-E	4	Brevard	13.59
544-B	5	Pasco	11.33

604 4 Volusia 7.72

Drainage Structures and Rock Base:

544	5	Pasco	8.75
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Clearing and Grubbing, Grading, Drainage Structures and Sand-Clay Surface:

571	1	Madison	14.73
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Clearing and Grubbing, Grading, Drainage Structures and Local Crushed Rock Base:

576	5	Sarasota	5.68
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Ditching, Trenching and Constructing 6" Rock Shoulders:

605	8	Polk	21
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All work to be done in accordance with plans and specifications of the State Road Department.

A certified check or bidder's bond made payable to the Chairman of the State Road Department in the sum of five (5%) per cent of the amount bid, must accompany each proposal.

Plans may be examined at this office or at the offices of the Division Engineers, or may be obtained upon application to this office for the sum of \$5.00 each, which amount will be refunded if plans are returned in good condition by a bona fide bidder within 10 days after bids have been received.

The right is reserved to reject any or all bids.

H. B. PHILIPS,
J. L. CRESAP,
Acting State Highway Engineer.

Bids close December 5, 1923.

Street Improvements

Raleigh, N. C.

Sealed proposals will be received by the Mayor and Commissioners of the City of Raleigh, N. C., until 3:00 P. M., December 5th, 1923, at the City Hall in Raleigh, N. C., for the construction of Street Improvements.

The work will consist of approximately 75,000 square yards, more or less, of Sheet Asphalt or other Bituminous pavement on a concrete foundation; or One Course Concrete Pavement; Combined Concrete Curb and Gutter; Granite Curbing; Storm Draining, etc.

Proposals must be marked "Proposals for Street Improvements for the City of Raleigh, N. C." All bids must be submitted upon blank forms provided in copies of the proposal, contract and specifications.

Each bid must be accompanied by a certified check for five (5) per cent of the amount of the bid, as evidence of good faith.

Plans, copies of the proposal, contract, specifications, etc., may be obtained upon application to the Engineer.

The City reserves the right to reject any or all bids or to award contracts which appear to be for the best interests of the City.

WILLIAM C. OLSEN, Engineer,
Raleigh, N. C.
Kinston, N. C.

E. E. CULBRETH, Mayor.
C. C. PAGE, Commissioner, Public Works.
W. L. DOWELL, City Clerk.

Bids close December 13, 1923.

Road Construction

Charleston, W. Va.

Sealed proposals will be received by the State Road Commission of West Virginia at its offices in Charleston, West Virginia, until 10 o'clock A. M., on the 13th day of December, 1923, and said proposals will be opened and read immediately thereafter at the Kanawha County Court House, Charleston, W. Va., for the construction of the following sections of State Road:

Project 3304-A—Monroe County—10 miles of the Rock Camp-Peterstown Road, for grading and draining. Certified check \$7000.00.

Project 131—Pocahontas County—2.1 miles of Marlinton-Buckeye Road, for paving with bituminous macadam. Certified check \$2500.00.

Project 132—Pocahontas County—4.2 miles of Buckeye Mill Point Road, for paving with bituminous macadam. Certified check \$4500.00.

Project 3200—Logan County—6 miles of Blair-Ethel Road, for grading and draining. Certified check \$3500.00.

Project 3229—Taylor County—7 miles of Northwestern Turnpike, for grading and draining. Certified check \$4500.00.

Project 3278-A—Lewis County—6.5 miles of Glenville-Weston Road, for grading and draining. Certified check \$3500.00.

Project 3160—Doddridge County—8.14 miles of Northwestern Turnpike, for concrete paving. Certified check \$9500.00.

Project 3186—Preston County—5 miles of the Thomas-Oakland Road, for grading and draining. Certified check \$4000.00.

Project 3272—Preston County—5.6 miles of Reedsville-Monongalia County Line Road, for grading, draining and paving with bituminous macadam. Certified check \$7000.00.

Project 3274—Monongalia County—8 miles of Morgantown-Preston County Line Road, for grading, draining and paving with bituminous macadam. Certified check \$12,000.00.

Project 134—Hampshire County—5 miles of Pleasantdale-Hanging Rock Road, for grading and draining. Certified check \$2500.00.

Proposals will be received only upon State Standard forms in accordance with plans, specifications and estimates of quantities therefore, which standard forms, plans, specifications and estimates may be obtained from the office of the Division Engineer in whose territory the proposed construction is located, or from the office of the State Road Commission at Charleston, West Virginia.

Each proposal must be accompanied by a certified check for the amount noted.

The right is reserved to reject any and all proposals.

STATE ROAD COMMISSION
OF WEST VIRGINIA
E. B. CARSKADON, Secretary.

November 22, 1923.
Manufacturers Record.

Bids close December 11, 1923.

Road and Bridge Construction

Charleston, W. Va.

Sealed proposals will be received by the State Road Commission of West Virginia at its offices in Charleston, West Virginia, until 10 o'clock A. M., on the 11th day of December, 1923, and said proposals will be opened and read immediately thereafter at the Kanawha County Court House, Charleston, W. Va., for the construction of the following bridges and sections of State Road:

Project 130—Fayette County—8.15 miles of the Ravensey Greenbrier County Line Road, for paving with bituminous macadam. Certified check \$10,000.00.

Project 128—Fayette County—0.4 miles at Amsted for grading, draining and paving with bituminous macadam. Certified check \$1000.00.

Project 127-B—Greenbrier County—5 miles of Clintonville-Alta Road for paving with bituminous macadam. Certified check \$6500.00.

Project 3188—Wayne County—Stone Coal Bridge No. 898—Steel pony truss 85-foot span. Superstructure only. Certified check \$500.00.

Project 3190—Wayne County—7.4 miles of the Fleming-Dunlow Road for grading and draining.

Project 3202-B—Wayne County—2.4 miles of the Fleming-Dunlow Road, for grading and draining. Both to be let in one contract. Certified check \$8500.00.

Project 3162—Wetzel County—Schedler Bridge No. 886—Concrete through girder 35-foot span.

Four concrete bridges—Moore No. 892, Wade No. 893, Cook No. 894, Huff No. 895—80-foot spans each. All in one contract. Certified check \$3000.00.

Project 3167-B—Marshall County—Denver Bridge No. 885—150-foot steel superstructure only. Certified check \$600.00.

Project 3116-C—Wood County—4 miles of the Dallison-Ritchie County Line Road for grading, draining, and paving with concrete, and

Project 3260—Ritchie County—3 miles of Wood County Line-Nutter Farm Road, for grading, draining and paving with concrete. Both to be let in one contract. Certified check \$13,000.00.

Project 3165—Calhoun County—1 mile of the Main Street at Grantsville, for grading and draining. Certified check \$1500.00.

Project 3082-A-1—Wetzel County—0.2 miles Corporation Line at New Martinsville to the Northerly line of Long Street, for grading, draining and paving with concrete. Certified check \$500.00.

Project 3279—Webster County—Grassy Creek Bridge No. 690. Concrete arch—two 50-foot spans, and

Holly River Bridge No. 920—Concrete arch—80-foot span. Both to be let in one contract. Certified check \$1000.00.

Project 3111—Gilmer County—Cedar Creek Bridge No. 842—Masonry substructure and 140-foot span steel through truss, superstructure. Separate proposals will be received for substructure. Certified check \$600.00—and superstructure—Certified check \$600.00.

Project 2135—Marion County—Annabelle Bridge No. 899—Concrete Deck girder 40-foot span. Certified check \$500.00.

Project 3279-A—Webster County—10.8 miles of the Diana-Cleveland Road, for grading and draining. Certified check \$9000.00.

Project 3203-D—Preston County—6 miles of Northwestern Turnpike for grading and draining. Certified check \$3800.00.

Project 3203-E—Preston County—5 miles of Northwestern Turnpike for grading and draining. Certified check \$2500.00.

Project 3276—Barbour County—1.5 miles of Phillipi-Clarksburg Road, for grading, draining and paving with bituminous macadam. Certified check \$2000.00.

Project 3184—Barbour County—7.4 miles of Phillipi-Grafton Road, for paving with bituminous macadam. Certified check \$7000.00.

Project 117—Randolph County—Leading Creek Bridge No. 846. Concrete arch. Two 60-foot spans. Certified check \$900.00.

Project 3033—Randolph County—3 Bridges over Ralston Run, No. 864, No. 865, No. 866—Concrete through girder 40-foot spans each. All in one contract. Certified check \$800.00.

Project 122-B—Grant County—Abrams Creek Bridge No. 883. 80-foot span pony truss. Superstructure only. Certified check \$500.00.

Project 3146—Grant County—Kline Gap Bridge No. 884—three 20-foot concrete slabs. Certified check \$500.00.

Proposals will be received only upon State

Standard forms in accordance with plans, specifications and estimates of quantities therefore, which standard forms, plans, specifications and estimates may be obtained from the office of the Division Engineer in whose territory the proposed construction is located, or from the office of the State Road Commission at Charleston, West Virginia.

Each proposal must be accompanied by a certified check for the amount noted.

The right is reserved to reject any and all proposals.

STATE ROAD COMMISSION
OF WEST VIRGINIA
E. B. CARSKADON, Secretary.

Bids close December 18, 1923.

Water Works

Laurinburg, N. C.

Sealed proposals will be received by the Mayor and Board of Town Commissioners of the Town of Laurinburg, N. C., at the office of the Town Clerk in Laurinburg, N. C. until three o'clock P. M., December 18th, 1923, for Water Works Improvements.

The work will consist of:

Brick and Concrete Pumping Station, Filter House, and Filter Tubs.

Brick and Concrete Auxiliary Station.

Concrete Coagulating Basin.

Concrete Storage Reservoir.

Steel Wash Water Tank and Tower.

Three and one-half miles of Cast Iron Pipe Line.

Three and one-half miles of 6600 volt Transmission Line.

Motor-driven Centrifugal Pumps, and accessories.

Filter Plant Equipment.

Proposals must be marked, "Proposal for Water Works Improvements."

All bids must be upon blank forms provided in the Proposal, Specifications and Contract.

Each bid must be accompanied by a certified check for not less than five per cent of the amount of the bid, as evidence of good faith.

Plans and specifications will be on file at the Clerk's office in Laurinburg, and at the office of the Engineer in Durham, N. C.; and copies of specifications, forms of proposal, etc., will be mailed upon application to the Engineer at Durham, N. C., accompanied by payment for each set of plans and specifications, of Ten Dollars (\$10.00) which will be refunded to those who submit bona-fide bids.

The right is reserved to reject any or all bids.

H. W. MALLOY, Mayor.
C. M. FETTER, Clerk.

Engineer:

GILBERT C. WHITE CO.,
Durham, N. C.

Bids close December 12, 1923.

Water Works

Keyser, W. Va.

Sealed bids for the construction of a TWO MILLION GALLON RAPID SAND FILTRATION PLANT, STEEL RESERVOIR TANK, ELEVATED TANK, BOOSTER PUMPING STATION, CAST IRON PIPE, FORCE MAINS, CENTRIFUGAL PUMPS, AND APPURTENANCES, will be received by the City of Keyser, West Virginia, at the office of the City Clerk, until seven o'clock P. M., Eastern Standard Time, the twelfth day of December, 1923, and will then be opened and read publicly.

Plans, specifications, proposal sheets and all information relative to same may be seen at the office of the City Clerk, Keyser, West Virginia, or may be had by bona fide bidders upon application to The J. N. Chester Engineers, Union Bank Building, Pittsburgh, Pa., upon deposit of a certified check for Twenty-five Dollars (\$25.00), which will be refunded upon the return of plans and specifications.

E. V. ROMIG, Mayor.
THE J. N. CHESTER ENGINEERS.
Union Bank Building,
Pittsburgh, Pa.

Bids close December 12, 1923.

Sewers

Baton Rouge, La.

Sealed bids will be received by the Commission Council of Baton Rouge, La., at the City Hall until 11:00 A. M., Wednesday, December 12th, 1923, for constructing certain Sanitary Sewers and Appurtenances in the City of Baton Rouge.

Approximate Quantities:
76000 linear feet 8" V. C. Pipe
4800 linear feet 10" V. C. Pipe
7500 linear feet 12" V. C. Pipe
2200 linear feet 18" V. C. Pipe
232 Manholes
77 Flush tanks (Miller)

Plans and specifications on file in the office of the Consulting Engineer City Hall, Baton Rouge, La. Copies may be had upon payment of fifteen dollars.

A certified check or bidders bond for \$7500.00 payable to the Commissioner of Finance, Baton Rouge, must accompany each bid. The right is reserved to reject any and all bids.

J. W. BILLINGSLEY,
Consulting Engineer.

Bids close December 28, 1923.

Governor's Mansion

KANAWHA, DUFFY AND VIRGINIA
STREETS

Charleston, W. Va.

Sealed bids will be received by the State Board of Control at its office in Charleston, W. Va. until 2:00 P. M., Friday, December 28, 1923, for the furnishing of all labor and materials of every kind necessary in the completion of the building described below, according to the plans and specifications of Walter F. Martens, Architect, Charleston, W. Va.

The building is to be 73 ft. 6 in. x 81 ft. 2 in. with a service wing 58 ft. x 17 ft., and with additional areas for porches; semi-fireproof construction; two stories high, with half basement and attic; walls brick, hollow tile; exterior walls faced with Colonial Red Brick; Vermont Marble and Indiana Limestone trim; slate roofing; built-up roofing on decks; structural steel and steel lumber; tile floor in halls, baths, toilets and porches, oak floors elsewhere; wood stairs on steel frames; trim Birch, Oak and Poplar; metal lath; Gypsum and cement plaster; wood sash, frames and doors; electric wiring, conduit system; inter-communicating telephone system; plumbing; vapor steam heating system; incinerator; vacuum cleaner.

Plans, specifications and blank form for bids will be mailed by the State Board of Control, when request is accompanied with check for \$25.00, which amount will be refunded only on receipt of bona-fide bid on or before the time named above, and the return of the plans.

Bids to be accompanied with certified check payable to the State Board of Control for an amount equal to 1% of the bid, as guarantee of good faith.

State Board of Control
By JAMES S. LAKIN, Pres.
Charleston, Kanawha County, W. Va.

Bids close December 11, 1923.

Hotel

Union, S. C., Nov. 3, 1923.

On Tuesday, December 11th, 1923, at 4:30 P. M., the Board of Directors of The Union Hotel Co., will receive bids for the construction of the new Hotel "Fairforest", to be built at Union, S. C.

The building will be five stories and basement, approximately 78x79 feet, reinforced concrete frame with fireproof partitions, tar and gravel roof on concrete, and brick walls, with face brick and limestone trimmings.

The building will contain heating plant, plumbing and electric work, elevator, tile and marble work, ornamental plaster, etc.

Plans and specifications are on file for the inspection of bidders at the office of Jones & Trott, Inc., Architects, Greenville, S. C., and also at the following places.

Greenville, S.C., Builders Exchange.
Columbia, S. C., Builders Exchange.
Charlotte, N. C., Builders Exchange.
Atlanta, Ga., Builders Exchange.
Chattanooga, Tenn., Builders Exchange.

Responsible prospective bidders on the general contract may obtain loan of a set of plans and specifications by a payment of \$25.00, which will be refunded if the plans and specifications are returned with bona fide bid on the time above set.

Additional copies will be loaned to subcontractors on the payment of \$15.00 to the Architect.

Each bidder must attach to his proposal a Certified Check for the amount of 2% of his bid, made payable to the Union Hotel Co., as a guarantee that if his bid is accepted he will enter into contract and execute the bond as required.

The Board of Directors reserve the right to reject any or all bids.

THE UNION HOTEL CO.,
W. S. NICHOLSON, President,
JONES & TROT, Inc., Architects,
Greenville, S. C.

Bids close December 28, 1923.

Hall of Chemistry

WEST VIRGINIA UNIVERSITY

Morgantown, W. Va.

Sealed proposals will be received by the State Board of Control, at its office in Charleston, W. Va., until 3:00 P. M. Friday, December 28th, 1923, for doing all work and furnishing all material necessary to complete the building described below, according to the plans and specifications, and the addenda thereto, prepared therefore by PAUL A. DAVIS 3rd & DUNLAP, Architects, Philadelphia, Pa.

The building is to be 305 ft. 7 in. x 79 ft. 0 in., four stories, with basement and attic, with extension of one story and basement. Fireproof construction except main roof, which is steel, wood and slate. Exterior of face brick with Indiana Limestone trimmings. Interior brick finished walls, concrete ceilings. Interior wood finish of Oak. Interior partitions brick and tile. Stairs iron. Entrance vestibule marble and plaster. Floors of terrazzo, marble, tile, composition, cement and asphalt.

Plans and specifications, and blank form for bids will be mailed by the State Board of Control when request for plans is accompanied with check for \$25.00, which amount will be refunded only upon receipt of bona-fide bid and certified check, on or before time named above, and return of plans and specifications.

State Board of Control
By JAMES S. LAKIN, Pres.
Charleston, Kanawha County, W. Va.

Bids close November 26, 1923.

Addition to Court House

Huntington, W. Va.

SEALED BIDS will be received by the County Court of Cabell County, West Virginia, until one o'clock P. M., Monday, November 26, 1923, at County Court Room, at Court House, at Huntington, West Virginia, for the construction, erection and completion of a three-story, reinforced concrete building, 65x107 feet, on the west of the present county building, in accordance with plans and specifications prepared and to be furnished by Robert L. & Sidney L. Day, Architects, Huntington, W. Va., a copy of which are on file in the office of the Clerk of the County Court.

Each bidder will be required to deposit and file with bid a certified check in the sum of \$1500.00, payable to the County Court of Cabell County, West Virginia, to be forfeited in the event of the failure of the bidder to whom the contract may be awarded to execute contract for the work proposed, within one week after the acceptance by the County Court of the bid.

Contractor required to execute bond covering the contract.

All proposals or bids to be made on blanks furnished by the Architects, and in accordance with the plans and specifications and drawings aforesaid.

The Court reserves the right to reject any and all bids.

Done at Huntington, W. Va., October 24, 1923.

COUNTY COURT CABELL COUNTY,
WEST VIRGINIA.

By T. H. NASH, President.

Bids close December 27, 1923.

Elks' Home

ALTERATIONS AND ADDITIONS

New Orleans, La.

Sealed proposals covering Work for alterations and additions to the Elks' Home, New Orleans, will be received at the office of the Secretary of the Benevolent Association of Elks, 121 Elk Place, New Orleans, Louisiana, up to 12 o'clock noon, Thursday, December 27th, 1923.

The opening of bids will immediately follow.

General Contractors may obtain the drawings and specifications which give information concerning the Proposal Bond, Guarantee Bond, Terms of Payment, regulations governing the manner of submitting proposal, etc., from Rathbone DeBuys, Architect, E. A. Christy, Associate Architect, 1406 Hibernia Bank Building, New Orleans, La.

A certified check for \$50.00, payable to the order of the Architect, will be required as a deposit for each set of drawings and specifications given out; two sets being allotted to each contractor. A charge of \$15.00 plus deposit will be made for each additional set. The deposit will be refunded upon return of the Drawings and Specifications, if in good condition.

The right is reserved to accept or reject for a period of fifteen days from December 27th, 1923, any and all proposals and to waive informalities.

Benevolent Association of Elks.
JOHN P. SULLIVAN
Chairman Building Committee.

Bids close December 11, 1923.

Warehouse

Tampa, Fla.

Sealed bids will be received by the City Commission of Tampa, Florida, until Tuesday at 2 o'clock, P. M., December 11th, 1923, for furnishing all material and labor, and building a warehouse 694x75-ft., at the City Docks, in the City of Tampa; all in accordance with the plans and specifications, copies of which may be secured from A. W. D. Hall, Engineer in charge of the work. Post Office address Box 2736.

The erection of the building can not be started until certain work now under way is completed, which will not be before Feb. 15th.

Each bid shall be accompanied by a certified check for Five per cent of the amount of the bid as a guarantee the successful bidder will enter into contract and furnish bond as required by the specifications. The checks of unsuccessful bidders will be returned within thirty days from the date letting. The Commission reserves the right to reject any or all bids.

CHAS. H. BROWN,
Mayor Commissioner.
WM. E. DUNCAN,
City Clerk.
A. W. D. HALL,
Engineer.

(Additional Proposals on Page 106)

Bids close December 17, 1923.

Fire Hose Wagon and Pumper

Vicksburg, Miss.

Sealed bids will be received at the office of the City Clerk of Vicksburg, Mississippi up to 4 o'clock P. M., December 17th, 1923, for the purchase of one Triple Combination Fire Hose Wagon and Pumper. Bidders to furnish detailed specifications of their outfit. Certified check for 10% of the amount of bid must accompany same.

The Board reserves the right to reject any and all bids.

J. J. HAYES, Mayor.

Carpentry Work

Wanted to sublet large lot of carpentry work, high school building, Chester, S. C. Apply

KING LUMBER CO.,
Charlottesville, Va.

Plastering

WANTED—To sublet plastering of several buildings in North Carolina and West Virginia. Apply Box 59, Charlottesville, Va.

Bids close November 28, 1923.

Cast Iron Pipe and Special

DEPARTMENT OF PUBLIC
IMPROVEMENTS
SUB-DEPARTMENT OF
HIGHWAY ENGINEER
HIGHWAYS ENGINEER

Baltimore, Md., Nov. 14, 1923. Sealed bids or proposals, in duplicate, addressed to the Board of Awards for furnishing and delivering Cast Iron Pipe and Cast Iron Special Castings to the Highways Engineer Department, will be received by the City Register at his office, City Hall, Baltimore, Md., until 11:00 o'clock A. M., Wednesday, November 28, 1923, at which time and place they will be publicly opened by the Board of Awards and read.

The quantity of castings comprised in this contract is about nineteen and one-half (19½) tons.

Specifications and bidding forms may be obtained from the office of the Highways Engineer, Room 10, City Hall, Baltimore, Md.

Bond in the amount of the contract price will be required of the successful bidder.

The Board of Awards reserves the right to reject any and all bids.

Approved:
B. L. CROZIER,
Highways Engineer.

Approved:
STEWART PURCELL,
Chief Engineer.

Approved:
HOWARD BRYANT,
Acting President, Board
of Awards.

Approved:
FRANK DRISCOLL,
Assistant City Solicitor.

FARM AND TIMBER LAND

FOR SALE—Mississippi Land, 1100 acres, well located in Jasper Co., limestone and sandy soil. Cotton, corn, alfalfa and other crops grown. Good pasture grasses and clovers. For further information, write N. D. Graham, Rose Hill, Miss.

FARM, FRUIT, AND TRUCK LANDS

FLORIDA

FLORIDA—Playground of the Rich; Paradise of the poor. The fastest developing State in the Union, and Roger Babson, the great business statistician, says that TAMPA is destined to be the greatest city in the Southeast. Come and be one of us. We have a Home, Grove or Farm for you. Send today for booklet "Largest Orange Tree in the World," and list. Tampa-West Coast Realty Co., (Inc.), Opp. Post Office, "Since before the war," Tampa, Fla.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWER, MISCELLANEOUS PROPERTIES

FOR SALE—5120 acres solid muck, available, one body, hard road, very low price from owners. The Dixie Highway Muck Co., Arcadia, Florida.

SOUTHERN INVESTMENT Opportunities. We offer timber lands, coal lands, mines, sawmills, industrial plants, ice plants, public utilities, quarries, etc. Hodgson Investment Company, Knoxville, Tenn.

COAL LANDS AND MINES

FOR SALE OR LEASE—400 acres on P. R. R. in Jeff County, Pa., 5-ft. seam, Write ALEX. WAITE, Reynoldsville, Pa.

TIMBER LAND

VIRGINIA—Twenty million feet of mixed hard wood and pine timber, near main line railroad, in Middle Virginia, between Lynchburg and Richmond, attractive price. John W. Ponton, The Farm Tailor, Bedford, Va.

TIMBER AND TIMBER LAND

FOR SALE: 4,000,000 feet long and short leaf pine, located on Chattahoochee River and seven miles from A. C. L. R. R. Karl Simmons, R. F. D., Bascom, Fla.

FOR SALE—30 Million feet long leaf pine on 5500 acres land. Logging conditions ideal, on railroad and navigable stream. Complete modern saw mill, dry kiln and planing mill, 40,000 feet daily capacity; \$50,000 cash payment required, balance can be arranged. Would consider selling interest to right people. Complete information on request. We are owners, not agents. Address No. 6226 care Manufacturers Record.

MEXICO TIMBER

Can deliver following tracts consisting of 51,000, 186,000, 264,000, 304,000 and 441,000 acres virgin pine, estimated will cut 5000 to 15,000 ft. and more per acre, located in States of Durango and Chihuahua, all accessible to railroads, at \$1.50 per acre and give terms to responsible people. Titles perfect and all owned by one concern. For full details, address A. H. BLINDBRY, Box 827, El Paso, Tex.

November 22, 1923.
Manufacturers Record.**FARM, FRUIT, AND TRUCK LANDS****SOUTH CAROLINA**

MR. BUSINESS MAN or SPORTSMAN, how would you like a winter home site on deep salt water among giant oaks, magnolias, pines, green lawns, where you can grow flowers, oranges and grapefruit? Within two hours' reach by automobile of duck, quail, deer, turkey and other wild game. Excellent climate and health. Our chief industry is growing vegetables for shipment in car and train lots in winter and early spring. Plenty of laborers. Good churches, schools, and real American citizens. Write us for further information.

LAKE REALTY COMPANY,
Beaufort, S. C.

BUSINESS OPPORTUNITIES

EVER-TYTE AND ZELCO PISTON RINGS with patented Zelco Process save Gasoline, Oil, increase capacity, prevent cylinders from wearing out of round, lessen Carbon; after using, make arrangement with us to sell them; are looking for distributors with mechanical knowledge; made up to 80 inch; used in Locomotives, Boats, Engines, Compressors, Ice Machines, Pumps, Trucks, Tractors, etc.; real opportunity: all or part time.
Ever-Tyte, St. Louis.

PARTNER WANTED by man with modern equipment for Sewer and Water Main Construction such as Trench Machine, Back-filler, Pumps, Trucks, etc. Wants partner with money to finance contracts. Address No. 6236, care Manufacturers Record.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW,

Harlow Building, Colorado Building, Alexandria, Va. Washington, D. C.

FOR SALE—Theatre business building in heart of business district of Eustis, Florida. Commodious well ventilated and equipped auditorium and stage. Two stores fronting main street and arcade. Seven office suites. Annual rental income \$7980.

MATTOCKS & WHEELER, INC.

Eustis, Florida.

WAREHOUSE FOR RENT—Have two warehouses with about 127,000 cubic feet space on private siding at Suffolk, Va., one of the best distributing points in the South. J. Walter Hosier, Suffolk, Va.

COLLECTION

PACIFIC COAST COLLECTIONS
M. Z. FARWELL, INC.
507 Flatiron Building
San Francisco, Cal.

FINANCIAL

SOUTHERN
MILL STOCKS
BANK STOCKS
BONDS

25 years' experience in this field.
F. C. ABBOTT & CO.,
Charlotte, N. C.

VALUABLE TEXT-BOOKS on the "Money Question"—The most vital question affecting the welfare of the people. The Monetary Educational Bureau, Kellogg Bldg., Washington, D. C.

WATER POWER SITE WANTED

WANTED TO PURCHASE—Water power site capable of developing 1000 horse power or over. Address No. 6251, care Manufacturers Record, Baltimore, Md.

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LOUISBURG, N. C., Wants Manufacturing Industries of all kinds. We offer good railroad facilities, ample water supply, good labor conditions, healthful climate and plenty of cotton grown all around us. We want you to locate your industry in our city and will co-operate with you in every way possible. Let us hear from you.

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Louisburg, N. C.

INDUSTRIES WANTED**ALTA VISTA, VIRGINIA**

A live town.
Two railroads, Virginia City basic freight rate.
Free manufacturing sites.
Staunton River passes through the town.
We invite you to look us over.
CHAMBER OF COMMERCE

HERNDON, VA., the best location in Northern Virginia for young enterprises that intend to grow. What do you make that the farmers, the dairymen and the fruit growers need for the production and distribution of their output? We offer railroad, large electric power and water facilities. Eight miles from Superpower plant site at Great Falls. Address Chamber of Commerce.

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FOR SALE—Veneer Plant and Sawmill, almost new. With or without buildings, containing fifty thousand feet floor space. All in good repair. Location good, good rates, plenty of good timber. A bargain for quick sale. Address No. 6242, care Manufacturers Record, Baltimore, Md.

FACTORY SITES

For Sale
MANUFACTURING SITE
on Railroad and Water
Hastings Bros., Norfolk, Va.

FREE FACTORY SITES.

A half mile frontage on the main line of the B. & O. R. R. will be given free to factories for sites, in East View addition to Terra-Alta, W. Va. Good water. Natural gas. Cheap coal. Unlimited electric current at lowest rates. Labor supply good. Cement state highway runs thru property. Address Dr. Geo. Beerbower, Trustee.

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"The Book for Inventors and Manufacturers." FREE. WRITE LACEY & LACEY, Dept. 15, Washington, D. C. Est. 1869.

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WRITE for our free Guide Books and "RECORD OF INVENTION BLANK" before disclosing inventions. Send model or sketch and description of your invention for our free prompt opinion of its patentable nature. Highest references. Reasonable terms. VICTOR J. EVANS & CO., 712 Ninth St., Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 644 G. St., N. W., Washington, D. C.

AGENTS WANTED

ELEVATORS: We desire to connect up with active and responsible Southern and Southwestern interests, either individuals, machinery dealers or those handling construction work, who are in a position to co-operate with us in the sale of the Harvey Elevator. This is substantial and thoroughly tested elevator hoisting equipment backed by satisfied users and built by a thoroughly reliable manufacturing concern. Address No. 6244, care Manufacturers Record, Baltimore, Md.

AGENCIES WANTED

DIRECT CONNECTIONS WANTED with manufacturers having articles for sale that they want sold in Southern California. Correspondence solicited. Best of references. Communicate with J. Merrow, 3681 5th St., San Diego, California.

TRAVELING SALESMAN—Twenty years experience in Md., Va., Pa., desires mfg. lines only; thoroughly acquainted in this territory; best of references. Address No. 6230, care Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

POSITION WANTED by experienced traveling man for the sale of Prepared Roofings, Paints and Coatings for North Carolina and South Carolina, on commission or salary. J. A. Lambert, 101 West 5th St., Atlanta, Ga.

MANAGER-BUYER capable handling any department manufacturing business. Extensive buying experience varied factory lines. Good organizer and plant supervisor. Might invest. Address No. 6249, care Manufacturers Record, Baltimore, Md.

I AM MAKING \$6000 a year but for various reasons, explained upon request, I desire to make a new connection. I have received a good education; am experienced in salesmanship and executive work and am well acquainted in Washington, D. C. I prefer a position as local representative for a manufacturer, assistant to an executive or something in a managerial capacity requiring tact and good judgment. I prefer to remain in Washington where I own my home but if your proposition is sufficiently attractive I would consider a change of location. I am 29 years of age, married and a member of several prominent clubs in this city. Address No. 6247, care Manufacturers Record, Baltimore, Md.

CONSTRUCTION MANAGER—American, 36 years old. University education. Experienced every department building construction; has held executive positions with leading firms; architects, contractors and technical manufacturers. Good organizer and driver. Has had foreign experience. New York and Western references. Address No. 6248, care Manufacturers Record.

CONSTRUCTION SUPT. American, single, go anywhere, good organizer, working knowledge, Spanish Language, with long exp. on difficult sewers, water lines and pavements, now employed desires change. No. 6252, care Manufacturers Record, Baltimore, Md.

MEN WANTED

Salaried positions \$2500 to \$25,000 upward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified, and receptive to tentative offers for a new connection you are invited to communicate in strict confidence with the undersigned, who will conduct preliminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, without jeopardizing present connections, and in a manner conforming strictly to professional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lockwood Building, Buffalo, N. Y.

FIRST CLASS leather belting manufacturer requires representative, experience necessary, good opportunity for the right man. Address No. 6250, care Manufacturers Record, Baltimore, Md.

WANTED—Superintendent of Maintenance and Construction by brick manufacturing company. Practical experience in maintenance and installation of machinery; millwright, mason work, etc.; good education. State salary and references. Address No. 6246, care Manufacturers Record.

BUILDING MATERIALS SALESMEN
Y. P. S. desires immediately several good salesmen in its FIREPROOFING division. If you are either a finished salesman of Metal Lath and kindred products or can be developed we are interested. Give us your history.

The Youngstown Pressed Steel Co.
Warren, Ohio.

MACHINERY AND SUPPLIES

FOR SALE:
At a sacrifice 2 Merriman Asphalt Plants. Price low for quick sale. P. O. Box 1488, Greensboro, N. C.

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OPPORTUNITIES Industrial and Agricultural

The A. & W. P.—W. Ry. of Alabama and Georgia Railroads traverse a territory rich in material and potential resources. Attractive industrial sites. For information apply:

Commercial & Agricultural Dev. Dept.—Above Lines Atlanta, Georgia

EUSTIS, FLORIDA

Needs 500 new Homes—They can be sold as built.

Eustis is growing so fast that it cannot finance its needs—we need outside capital to construct homes, flats, hotels, apartments, store buildings.

Lots at Reductions to Outside Capitalists.

\$750 residential lots at average of \$334. each if built upon this winter. This concession only secured through Building Committee of

Chamber of Commerce

Eustis, Lake County, Florida

to which association you will write for full information, literature, etc.

WHEN YOU WANT

- A position or agency
- An employe, agent or salesman
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- A new location for your factory, business or home
- A purchaser for your plant, factory, building, city property, mineral, timber or farm land.

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an advertisement in the
CLASSIFIED OPPORTUNITIES DEPARTMENT
and
GET QUICK RESULTS

This department is closely read on account of the constantly changing variety of opportunities offered making it a market place where buyer and seller, employer and employee, investors and those offering investments meet to mutual advantage and profit.

Ask us to send you a folder containing a few of the many testimonial letters we have received from advertisers in it.

SALE AT PUBLIC AUCTION

Of the entire plant of the Rosslyn Packing Company

Pursuant to the terms of an order of the United States Court for the Eastern District of Virginia, entered on the 13th day of November, 1923, in the cause of the Rosslyn Packing Company, Bankrupt, the undersigned Trustee in Bankruptcy, will offer for sale at public auction on the premises at Rosslyn, Arlington County, Virginia, on

Monday, December 10, 1923

At 3 O'clock P. M.

the following described real and personal property:

1. All that certain tract or parcel of land, situated at Rosslyn, Arlington County, Virginia, and described as follows: BOUNDED on the south by Canal Street, on the north by Potomac River, on the west by the land formerly held by H. H. Wells, Trustee, and on the east by the lands of the United States Government, at the south end of the Aqueduct Bridge, and designated on the plat of D. J. Howell, Surveyor, made in 1890, as Lots 1, 2, 3, 4, 5, 6, and 7, in Block 14, of Rosslyn, Arlington County, Virginia, containing 56,162 square feet, more or less, together with such riparian rights on the Potomac River as may lawfully attach to said property with all easements, appurtenances, ways, rights and privileges, to the same belonging, together with all the buildings, machinery, fixtures, and all market rights, privileges, stands, in any market or markets in the City of Washington, District of Columbia, or in any other place or places which the said Rosslyn Packing Company now owns.

2. All automobiles, trucks, wagons, and other personal property, located at the plant of the Rosslyn Packing Company.

TERMS OF SALE: The said real and personal property will be sold free of all encumbrances for cash. The successful bidder for the real estate will be required to deposit with the said Trustee on day of sale a certified check for \$10,000.00, and the balance will be payable upon confirmation of said sale by the Court.

Purchasers of the personal property will be required to pay the full amount of their bid in cash at the time of sale.

The property to be sold is a fully equipped packing plant, located on the Potomac River across from Washington, D. C. It may readily be utilized for an ice and ice cream manufacturing plant with a thickly populated market right at hand. For further particulars address or apply to

J. RANDALL CATON, Jr.

Trustee in Bankruptcy

Address: 111 South Fairfax Street, Alexandria, Va.

FOR SALE

Moulding and Silica Sand Land

Address

T. J. Nertney
Ottawa, Illinois

Operating Mine In Southern Appalachian Field FOR SALE

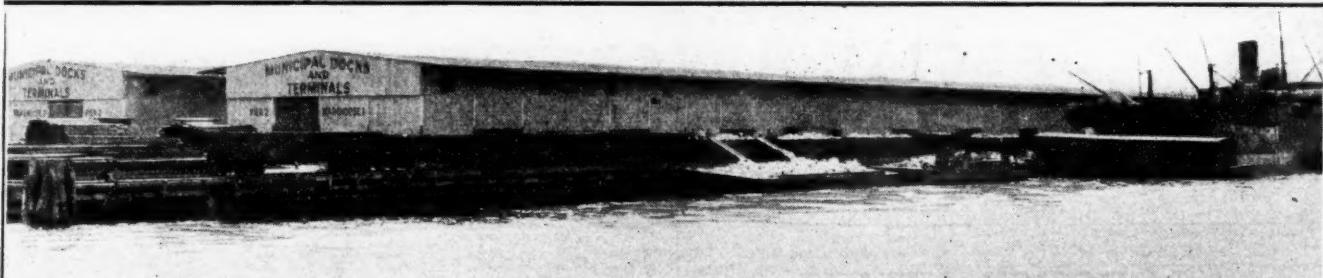
FULLY EQUIPPED, ELECTRIC HAULAGE. ONE THOUSAND TONS DAILY OUTPUT—HIGH GRADE BY-PRODUCT, GAS DOMESTIC AND STEAM COAL. NON-UNION FIELD.

Address
A-314 Care of Manufacturers Record
BALTIMORE, MARYLAND

SALESMAN AND ORGANIZER

Will raise \$10,000 to \$50,000 for business or venture that promises a worth while future. Address:

P. O. Box 457, CHICAGO, ILL.



Municipal Docks, Terminals and Warehouses Port of JACKSONVILLE, Florida

The Municipal Docks and Terminals of Jacksonville provide foreign and domestic shippers with forwarding facilities which expedite freight movements and largely eliminate storage and port charges.

Three piers, spacious warehouses, Webb cotton compress, 35-ton crane, 10 electric steel trucks, 14 miles of railroad sidings, shunting engines. Piers can accommodate ten average size vessels at one time. Ample anchorage in river basins.

To provide for the growing needs of shippers, the Municipal Docks and Terminals are now expending \$1,000,000.00 to enlarge and improve its important service to transportation.

Favorable Domestic Rail and Water Rates Low Ocean Tariffs to Foreign Ports

As Jacksonville is the last port of call and the first port of entry for vessels plying between the United States and many foreign countries, its imports and exports steadily gain in value and volume.

Rail rates to Jacksonville from Chicago, St. Louis, Cincinnati, Detroit, Louisville and other centers are lower than to North Atlantic ports, and coastwise water rates from Jacksonville to northern and southern ports favor shippers. Ocean tariffs are on a parity with other Atlantic ports and in some instances lower. Shippers will save money by exporting and importing thru the Port of Jacksonville.

A Booklet of Paramount Importance to Traffic Managers

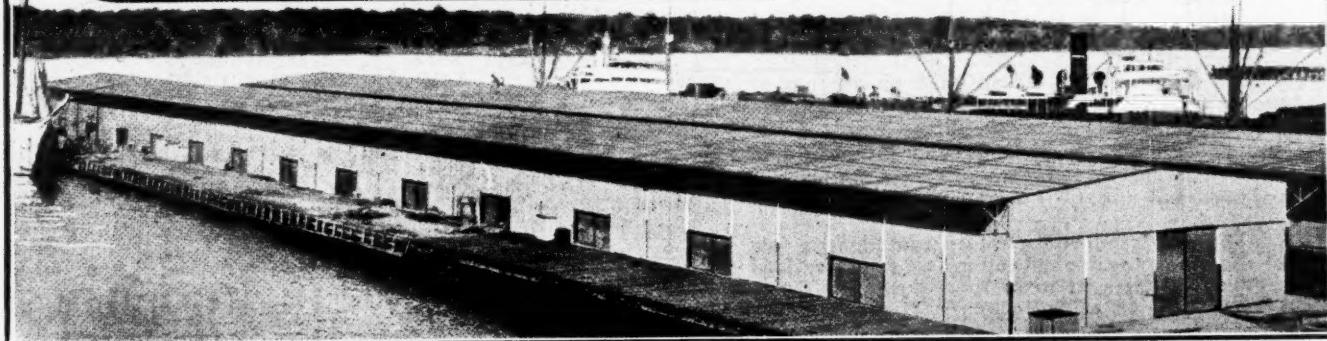
Traffic managers are invited to write for booklet, "The Port of Jacksonville," which gives facts and information of timely interest, to those confronted by shipping and distribution problems. Copy mailed at once, upon request and if you are interested in foreign trade, ask also to have your name placed on mailing list of "Sailing Announcements," issued weekly. Please address:

City Advertising Department ROOM 10-X, CITY HALL, JACKSONVILLE, FLORIDA

Resident consuls are maintained in Jacksonville by Great Britain, Norway, Belgium, Netherlands, Argentina, Brazil, Uruguay and Cuba.

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Jacksonville Municipal
Docks and Terminals
11 BROADWAY
J. W. WHITE, Manager

**TO EXECUTIVES PLANNING
A FLORIDA TRIP**
The Municipal Docks and Terminals
transfer automobiles and launches
from car to boat for a nominal charge.





More Linde Service for Linde Customers

The engineering help which the Linde field organization gives to Linde customers has grown to be an important and valuable part of Linde Service.

To augment this personal service rendered by our field organization, Linde offers its customers a monthly magazine—

OXY-ACTYLENE TIPS

This magazine contains well illustrated accounts of new or interesting applications of the process, showing how Linde Service aids in solving customers' problems. It is an integral part of Linde Service, and will be sent free to Linde customers on request.

For over a year, "Oxy-Acetylene Tips" has had a limited circulation as a means

of testing its value. The character of its contents has been well illustrated by the many articles from its pages reprinted in trade papers. The November issue tells in some detail the story of its first year.

Every Linde user should write the nearest Linde District Sales Office, requesting a copy of the November issue.

32 plants and 62 warehouses

THE LINDE AIR PRODUCTS COMPANY
Carbide and Carbon Building, 30 East 42d St., New York City

The Largest Producer of Oxygen in the World

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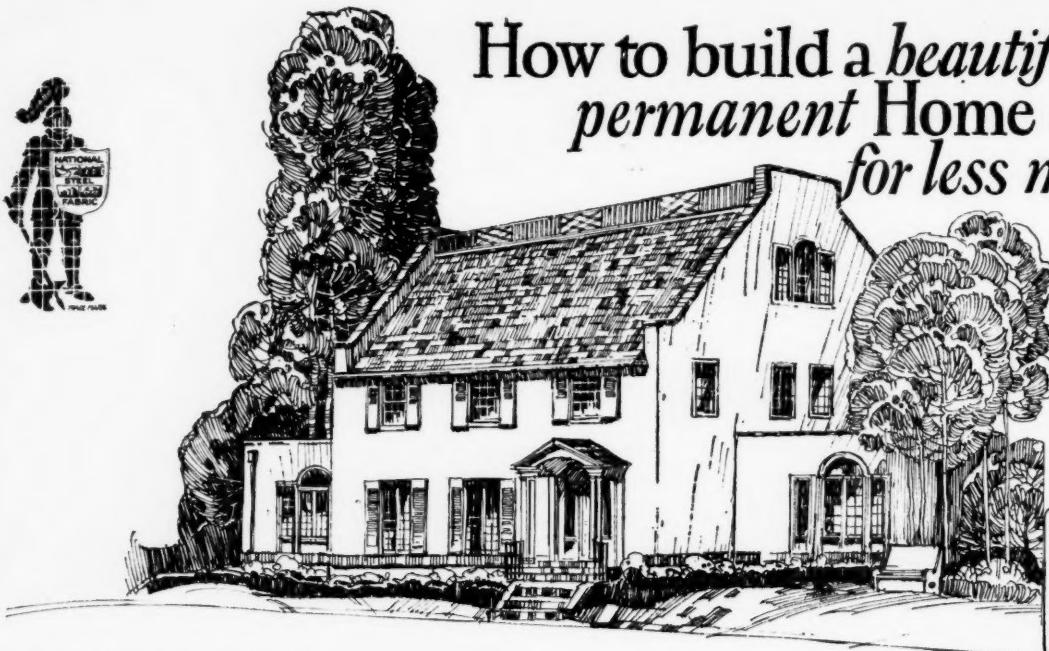
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LINDE OXYGEN



"National" Reinforced Stucco House
at Great Neck, Long Island, N. Y.
Oswald C. Hering and Douglas Fitch,
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To build a beautiful, permanent home *for less money*, use *reinforced* stucco applied over National Stucco-Plaster Reinforcement, because

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2. Its waterproof paper backing permits stucco and plaster to dry out properly—slowly.
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4. Base, waterproof paper, furring strips, and *reinforcement* are applied *in one operation*.
5. It is cheaper, in place, than any plaster and stucco lath or base.

Complete details are given in our new free Catalog—Write for a copy.

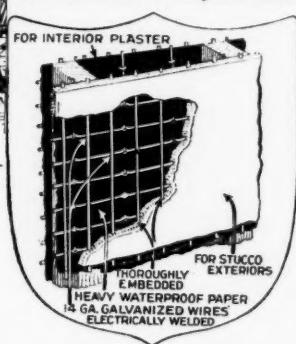
National Steel Fabric Company

(Subsidiary of Pittsburgh Steel Company)

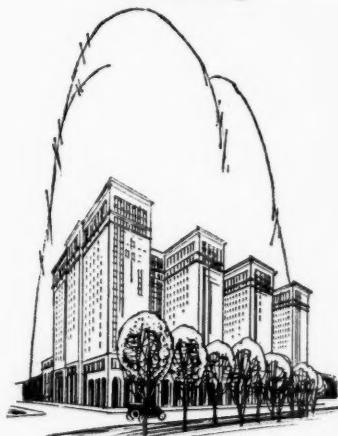
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A combination plaster and stucco base and *reinforcement* which makes those materials permanent and enduring.



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Largest office building in
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